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American Railroad Journal.

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Saturday, October 11, 1851.

Railways in British North America.

Continuing the narration of events, concerning railroads in British North America, we give the substance of the reply of Mr. Howe to the note of Mr. Archibald, published in the Journal of the 27th ult.

TO CHARLES D. ARCHIBALD, ESQ.

Dear Sir:—I have read the letter addressed by you to the people of Nova Scotia, a copy of which you enclosed to me this morning. Having survived the period when contention with enemies was a luxury, you may believe that to be compelled to criticize the conduct and views of a friend is sufficiently painful. The great interests of Nova Scotia—it may be of North America, enjoin upon me a task which if my own interests or feelings were alone involved, would be good humoredly put aside.

Down to the very moment when Mr. Howe's letter was put into your hand there was no friend in England more skeptical of my success, and again and again you urged me to enter into contracts with Mr. Hemmett to do the work, and with

the Commercial Bank to sell Nova Scotia's unguaranteed debentures for what they would bring.

Had your propositions been ever so advantageous, it is clear that there was nothing definite or tangible in them upon which the three Governments could act; we therefore, proceeded to act upon what was tangible—on Mr. Howe's letter, and on the following day arranged that scheme of policy which Canada has since clothed with Legislative sanction, and to which the Executive Councils of New Brunswick and Nova Scotia, at this moment stand pledged.

My present belief is, that that policy will be ratified by the Legislatures of the Lower Provinces. If anything prevents this, it will be your interference, the publication of your letters, and the new elements of strife and distraction which you appear disposed to furnish.

You state that I have said of your plan that it had not the "merit of originality." I said this of a plan which Mr. Johnston attributed to you, but for which he had no foundation, and which is not to be found in your memorandum, or in your published letter.

You say that the seven millions of Sovereigns are not in "a bag." But you know that they are as secure as if they were. The honor of the British Government, backed by the honor of the leader of British opposition, is pledged that they shall be produced, on certain conditions. Canada, has complied with the conditions required to entitle her to four millions of them. Nova Scotia and New Brunswick will entitle themselves to the other three, if the cupidity of speculators across the water is not thrown in to give fresh animation to the "party jealousies and influences" which you seem to deplore. In New Brunswick these have been, up to this moment, skillfully and wisely controlled. In Nova Scotia, you will see, before long, however, our party battles may be fought with the energy and ardour incident to free institutions, that whatever policy may be finally arranged by the three Provinces, will be carried in a style that will reflect honor and distinction upon our common country.

You invite me to "state the objections I entertain to your proposals," which you think are not derogatory "to the honor and interests of New Brunswick." I will do so frankly.

In the first place you assume that a noble Province like New Brunswick, with a territory as large as Massachusetts, Vermont, New Hampshire, New Jersey, and Rhode Island, put together—with a free Government, responsible to her citizens—with an industrious population, a flourishing revenue, light taxes, and overcrowded Europe to draw upon for a steady stream of emigration, cannot with the sympathy and co-operation of her sister Colonies and the credit of the Imperial Government at her back, hazard the construction of public works, which you and your friends will yet cheerfully construct, provided you are invested with one-se-

venth part of her territory—half a million of her money and provided the other Provinces give you the construction of their Railways.

Now, I am simple enough to believe that this proposition includes a flagrant disregard of the intelligence, and an insult to the dignity of New Brunswick.

Put all your friends together—unite their entire fortunes and resources, and as our neighbors quaintly say they could not "begin to buy" the homestead of New Brunswick. They could not purchase the property upon a single river. Yet we are told that the people who own the whole cannot risk the construction of these railways which can easily be accomplished by those whose resources are insignificant in comparison.

But does any body suppose that the Company you desire to form, are going to make these railroads from pure love of North America? Does any body believe that if money was to be lost, you would make them at all?—Fond as you are of "digging," would you strike a pick into the soil if there was not "metal more attractive" to be dug up, than even the ores in the Folly Mountain?

The Company must make a profit then and have a moral certainty that it will be sure and ample. Now out of what will this profit be made?

1st. From the expenditure of half a million of money to be given by New Brunswick.

2d. From a bonus of £20,000 sterling per annum, for twenty years, to be given by New Brunswick.

3d. From the expenditure of £5,100,000 to be given by Canada.

4th. From the expenditure of £1,000,000 of money to be given by Nova Scotia.

5th. From five millions of acres of land to be granted to the Company.

6th. From the tolls and revenues of the two great roads, passing through New Brunswick in all time to come.

Out of some or all of these resources, then, you expect your friends to be insured against risk, and to be remunerated for their outlay.

You are to have the expenditure of £5,000,000 to be raised on the credit of the Colonies, without competition. You are to have a bonus of £20,000 per annum from New Brunswick, for twenty years, equal to £400,000. You are to have 5,000,000 of acres of lands, worth at 5s. an acre £1,250,000, and you are to have the revenues of the two roads through New Brunswick; and 5 per cent on the Upper Canada lines, before the municipalities, which are to furnish a portion of the funds, receive a shilling. Assuming 20 per cent to be the profit derived from the expenditure of money raised on Colonial credit, it would amount to £1,120,000. Let us sum up these items.

Lands.....	£1,250,000
Profits.....	1,120,000
Bonus.....	400,000
	£2,770,000

The 400 miles through New Brunswick will cost, if due regard is paid economy, not more than £2,500,000 currency. New Brunswick is to contribute £500,000 and all the tolls of the two roads forever, are to be paid. *The Portland line, it is admitted on all hands will pay six per cent. when ever opened. It involves no risk. In less than ten years it will pay 10 per cent.* The central line, in a few years, will cease to be burthensome. Of both, you say, in your letter to the Governor General. An "enormous traffic awaits those lines, but who" can form a notion of the proportions to which it may expand within the next ten or twenty years?" If your anticipations are well founded, surely your proposals, however well intended, are based upon a very low estimate of the sagacity of those to whom they are addressed.

But I have another objection to your scheme. It is this—that Canada and Nova Scotia would pay indirectly, for the relief of New Brunswick, or rather to swell the profits of the Company, a larger amount than they agreed to risk by the arrangement made at Toronto. Besides, place a private Company in the heart of New Brunswick, to manage the central portions of the lines which at the two extremities are owned by Provincial Governments, the unity of the whole design, and the simplicity of the arrangements, would be broken up, and questions would arise every day for controversy, perhaps for litigation.

My last objection touches higher interests than pounds, shillings and pence. Show me the State or Province that ever willingly granted five millions of its territory, with all its mines, minerals and appurtenances to a private association. Nova Scotia would not make such a grant if she never had a railroad. The man who proposed it would sit alone in our Assembly. New Brunswick may be less particular, but such a grant once made, to any association, with all the patronage, expenditure, and revenues of her two great roads, and a power would be created in her midst that would very soon control both her government and the Legislature.

These are the objections which I conscientiously entertain to your scheme, and if they have not been stated with the skill to give them force, they have been explained, I trust, with the courtesy and moderation with which any proposition of yours ought to be disposed by yours truly,

JOSEPH HOWE.

Sept. 12, 1851.

Mr. Archibald replies to Mr. Howe under date of September 17th, and in a somewhat tart manner rebukes Mr. Howe for speaking of him as having "interfered" in this matter, which was one of public concern, and common alike to all the people of Nova Scotia.

Mr. Archibald shows very conclusively, that the policy of carrying out the system of railways for British North America by "private" companies, instead of by the agency of the government, has had the sanction of all the leading men in the several colonies. We quote the following paragraphs from Mr. Archibald's note, not having space to give more:

It would take up too much time and not be attended with much profit if I were to follow you through your exaggerated calculations based upon mere conjecture and assumption I therefore let them pass for what they may be worth and proceed to your last and most profound objection. It is not necessary to search far into the history of ancient or modern times "to find the State or Province that ever willingly granted millions of acres of its territories to a private association." New Brunswick is the country with which we have to deal and the one that I design to show you. The Facility Bill passed on the 30th April 1851, gives "to the European and North American Railway Company the ungranted Crown Lands within five miles on each side of the line of railway." But this is not all; in 1849 an able report from the Committee on Railways was laid before the House of Assembly of New Brunswick, in which it is recommended that the following order be made:—"To secure to the Government, or to the Company that may construct the line (the Halifax and Quebec) the ungranted

lands to the extent of ten miles on each side, &c.;" and the House following up this report, in a dutiful address to the Queen, says "we have already afforded the best possible proof of our own sincerity, by pledging ourselves to grant a sum of £20,000 a year for 20 years, together with at least two million acres of superior land, available for settlement and colonization."

But I am not yet done with the problem you have given me to solve. New Brunswick is not the only country that has contemplated the surrender of large portions of her territory to a private association. The distinguished Canadian Statesman, so often referred to of late as the master spirit of North America, in the Session of 1849, introduced a series of resolutions, among which I find the following: That if Her Majesty's Government shall undertake the construction of the railway between Halifax and Quebec either directly or through the instrumentality of a private company, it is right that Canada should undertake to pay yearly £20,000 sterling towards the deficiency to meet the interest (which is before fixed at 6 per cent.) and should place at the disposal of the Imperial Government all the ungranted lands within the Province, lying on the line of the railway, to the extent of ten miles on each side thereof, &c. Nova Scotia too, has made a like offer of money and lands, and I will suppose that the British Government, tired of delays and negotiations, or for other good reasons, should at length decide to accept these offers of the several Provinces; will any one contend or pretend that it would not be competent for the Imperial Government to enter into arrangements with a private Company or Association to undertake the whole work on their own account, and as a part of the consideration, to transfer to them these lands so placed at their disposal?

On the 20th of September, Mr. Archibald appeared at St. John, invited a meeting of the corporators, named in the charter of the European and North American Railroad, granted by New Brunswick, and offered to subscribe such an amount of stock as would be sufficient to organise the Company. Twenty-thousand pounds were taken by other parties on the spot, and the balance, Eighty thousand pounds, by Mr. Archibald for himself and friends. The capitalists represented by him were S. M. Peto, M. P. for Norwich, W. Jackson, Esq., M. P. for Newcastle, Mr. Betts and others. The deposit was made forthwith according to the terms of the charter, and the following notice issued, calling the meeting for organisation as follows:—

NOTICE.

The European and North American Railway Company.

WHEREAS, one hundred thousand pounds of the capital stock of the European and North American Railway Company has been duly subscribed, and a deposit of five shillings per share has been actually paid on the said amount so subscribed, into the Commercial Bank of New Brunswick, I, Daniel J. McLaughlin, President of the said Bank, do by virtue of the power and authority in me vested in and by the Act of Incorporation of said Company, hereby call a general Meeting of the Shareholders of said Company, to be held in the Commercial Bank Building in the City of Saint John, on Saturday, the 25th day of October next, at 12 o'clock, noon, in order to organise the said Company, make bye-laws and to choose the Directors thereof, of all which all persons will take due notice.

Given under my hand at the City of Saint John, this 23d day of September, A. D., 1851.

Sept. 24.

D. J. McLAUGHLIN.

The charter of the European and North American Railroad, in New Brunswick, is one of the most liberal ever granted by any Legislative body. It received the Royal assent under such circumstances as to give unusual significance to the course of Legislative proceedings in the British colonies. We give below the Despatch of Earl Grey, and the comments of the English Railway Commissioners, which will interest all our readers.

Downing Street, 12th June, 1851.

SIR,—I have to acknowledge the receipt of your Despatch No. 16, of the 7th April, transmitting certified copies of 3 Acts passed by the Legislature of New Brunswick in its last session, intitled respectively "An Act to incorporate the European and North American Railway Company. (2061); and an Act to facilitate the construction of the European and North American Railway (2062); and an Act to facilitate the construction of a Railway from St. Andrews to Quebec." (2063.)

Although it would appear that the most important of these Acts (that numbered 2061) is in some respects defective, I do not consider it necessary to recommend its disallowance on account of the imperfections pointed out by the Commissioners. I trust without doing so, and thus delaying the commencement of the work, a sufficient opportunity for reconsidering the subject will be secured to the Legislature of New Brunswick, by my deferring to submit the Act numbered 2062 for Her Majesty's confirmation. By this Act it is proposed that pecuniary assistance from the Colonial Treasury, to a very considerable amount should be given to the Company to enable them to construct the proposed Railway. To this I have no objection—on the contrary, I believe that in the present state of New Brunswick, it is consistent with sound policy that assistance should be given by the public towards the construction of the great leading lines of Railways; and the particular line now suggested for encouragement is one which I think deserves it, for though it appears to me one of less importance than the projected line from Halifax to Quebec, I regard it as not being calculated at all to interfere with the latter [if properly regulated,] but on the contrary, to contribute to its success. But while I am prepared to advise that Her Majesty's sanction should be given to a measure for affording assistance to this line on the principle proposed by the Act now under my consideration, I consider it inexpedient that this should be done until the Legislature shall have an opportunity of reconsidering the Act No. 2061, and that the proposed assistance to the Company should only be granted on condition of its assenting to such amendments of this Act as may then be found advisable. I trust that the Legislature will carefully consider all the remarks of the Commissioners, as I consider them to be of much importance, and I fear that the interests of the Province may hereafter be exposed to serious injury if the amendments in the Act which are suggested are not now made; but there are only two of these amendments on which as affecting the interests of the Empire at large, as distinguished from those of the Province alone, I consider it necessary to insist before Her Majesty can be advised to sanction the grant of pecuniary assistance to the Company. The two amendments which I consider to be indispensable are those pointed out by the Commissioners as being required to secure the use on fair terms for the traffic between Halifax and Quebec, of that part of the line of Railway now proposed to be constructed which will be common to the two lines, and secondly the conveyance of Her Majesty's Troops and stores for their use, along the line at reasonable rates of charge.

I am not yet enabled to express a positive opinion whether the Act No. 2063 ought to be confirmed: this question is still under consideration, but I hope to have it in my power to inform you by an early opportunity what decision may be adopted with respect to it.

In conformity with what I have now stated, the Act No. 2061 will be submitted to Her Majesty on the first opportunity, in order that it may be left to its operation. The Acts Nos. 2062 and 2063 will not be laid before the Queen for the present.

I am, &c.

[Signed]

GREY.

[EXTRACT.]

Office of Commissioners of Railways, }
Whitehall, 2nd June, 1851. }

SIR,—I am directed by the Commissioners of Railways to acknowledge the receipt of your letter of the 24th ultimo, enclosing copies of three Acts, passed by the Legislature of New Brunswick, entitled respectively—No. 2061, "An Act to incorporate the European and North American Railway

Company." No. 2062, "An Act to facilitate the construction of the European and North American Railway"—and No. 2063, "An act to facilitate the construction of a Railway from St. Andrews to Quebec"—and I am to acquaint you in reply for the information of Earl Grey, that agreeably to His Lordships request, the Commissioners have taken these Acts into their consideration, and have made the following observations upon their provisions.

By the Act No. 2061, it is proposed to incorporate a Company for the purpose of making a Railway, which in section 3 is described as "A Railway to run from some point or place from the Eastern boundary of the Province of New Brunswick in the Co. of Westmoreland so as the best to connect with a Railway to be constructed from the City of Halifax, or some other port on the Eastern coast of the Province of Nova Scotia, on the Atlantic Ocean, over the most practicable route through the Province of New Brunswick, so as the best to connect with a Railway to be constructed from the City of Bangor, in the United States of America, to the Eastern part of the State of Maine."

It appears probable that the direction of a considerable portion of this line, near the Eastern Boundary of New Brunswick, will coincide with that of the projected line from Halifax to Quebec, the construction of which has already engaged the attention of Earl Grey as an undertaking calculated to promote the interests both of the Colonies and of the Mother Country, and therefore entitled to encouragement and assistance on the part of H. M. Government. It appears from Mr. Hawes' letter to Mr. Howe of the 10th March, 1851, that one of the conditions of affording that assistance would be, the proposed Railway should be an entire line from Halifax to Quebec, passing wholly through British territory, but it would not be considered an objection to the plan, that it included a provision for establishing a communication between the Railway and the Railways of the United States. The above mentioned portion of the Railway proposed in the present Act might therefore form part of the main line of the Halifax and Quebec Railway; and as it would be expedient that the whole of that line should be under the same management, the Commissioners suggest that it might be advisable to stipulate with the Company incorporated by this Act, that in the event of arrangement being made for the construction of the Railway from Halifax to Quebec through this part of the Province of New Brunswick, it should be obligatory on the Company to transfer the common portion of the line to the parties entrusted with the construction of the Halifax and Quebec Railway, or a sum equivalent to the outlay incurred by the Company in making that portion of the line; and with this view, that the accounts relative to its construction should be kept in such a manner as to afford the means of apportioning the outlay accordingly.

The Commissioners proceed to consider certain provisions of this Act, which appear to them to call for remark.

In the 1st section, provision is made for submitting the Company's bye-laws to the Governor of the Province for his approval, but no power is reserved [as in the Imperial Act for the regulation of Railways, 3 and 4 Vict., c. 97., s. 9.] of disallowing the bye-laws at any future time after they shall have come into operation—and this power appears to be necessary for the completeness of the control over the bye-laws intended to be vested in the Governor, who would otherwise have no cause of suspending the operation of a bye-law that was found to be objectionable.

By section 5, the Directors are authorized until the Railway is completed, to pay interest to the Shareholders on the amount of the calls paid up by them. In former reports on New Brunswick Railway Acts, containing a similar provision, the Commissioners took occasion to observe that provisions of this kind were frequently at one time inserted in English Railway Acts, but in the Session of 1847 a Resolution was passed by both Houses of Parliament, [which has been since adopted as a standing order,] requiring the insertion in every Railway Bill of a clause prohibiting the payment of interest out of capital, and it might therefore be worthy of consideration whether the reasons that led to that Resolution were equally applicable to the Colony.

By Section 28, it is provided that the Act shall not be revoked, altered or amended, without the consent of the Company. This is inconsistent with the first recommendation in Mr. Secretary Gladstone's Circular Despatch, of the 15 January, 1846, and the clause there referred to as proper to be inserted in all Colonial Railway Acts—viz: "That nothing herein contained shall be construed to except the Railway by this Act, authorized to be made from the provisions of any general Act relating to Railways which may be passed during the present, or any future Session of Parliament." A clause of this kind is invariably inserted in English Railway Acts.

Section 38, after providing for the level crossings of Roads, authorizes the Company "If they deem it more conducive to the public safety to substitute a bridge over or under the Railway for the level crossing."

The Commissioners would suggest that a matter of so much importance to the public should not be left entirely to the discretion of the Company, but that power should be reserved to the Governor of the Province, or some other public officer, requiring the Company to make the alterations which the increase of traffic on the roads arising from that on the Railway may hereafter render necessary, although at present, a level crossing may be allowed without danger.

Section 55 gives the Company the power of levying tolls for the conveyance of passengers and goods. But the Act does not provide any scale of maximum charges for such conveyance. And this defect does not appear to be remedied by the power of revising the tolls and the option of purchasing the Railway reserved to the Government by the 55th and 57th Sections.

The exercise of those powers is dependent upon the event of the Company's profit exceeding a certain rate per cent. on their capital. In former communications addressed to the Colonial Office, the Commissioners have stated that although such provisions may have been introduced into Colonial Railway Acts for the purpose of thus intimating the possibility of future revision and purchase, yet, in their opinion, it may be questionable whether they can have any other practical effect.

The provisions in Section 61, with respect to the conveyance of Troops, appear to be defective in not specifying the terms and conditions of conveyance, as provided by the corresponding enactments of the Imperial Act 7 and 8 Vict.: c. 85, s. 12.

The 59th section adopts the provisions of the 13th Section of the Imperial Act 7 and 8 Vict.: c. 85 with regard to the power of the Government to establish a line of Electrical Telegraph on the Railway; but does not contain any clause similar to the 14th Section of that Act, for providing that the Telegraph subject to the prior right of use by the Government, shall be open to all persons, without favor or preference and at equal charges.

In the absence of any general Legislation on the subject of Railways in this Colony, it is necessary that every New Brunswick Railway Act should comprise within itself the whole of the provisions that may be considered requisite for the protection of the public interests. Provisions is made by the present Act for the conveyance of Mails and Troops, for laying down an Electrical Telegraph on the line of the Railway, and for making returns of traffic and accidents. But of the other matters which in this Country have been made the subject of general legislation with a view to the public safety and convenience, the Commissioners would particularly observe that the Act does not contain any provisions similar to those of the Imperial Acts relating to cheap Trains, the appointment of Inspectors, and the opening of the Railway after notice and inspection, and the construction of Bridges and Roads.

The Commissioners are desirous to draw the attention of Lord Grey to these variations from the course pursued in legislating upon Railways in the Country, leaving it as a matter entirely for His Lordship's consideration what degree of importance is to be attached to them, with reference to the local circumstances of the Colony, and whether any correction may be called for in the way of supplementary legislation.

(Signed,)

J. L. SIMONDS,
Captain Royal Engineers.

Notwithstanding the objections to the charter as pointed out by Earl Grey, the bill received the Royal assent, while the Facility Bill is withheld till after the meeting of the New Brunswick Legislature.

The two amendments pointed out by Earl Grey, as *indispensable* to secure the Royal assent to the Facility Bill, will undoubtedly be readily acceded to by the company.

If the proceedings in New Brunswick should serve as a guide for the action of Nova Scotia, the European and North American railroad will be built without delay. The policy proposed by the conservative party, as indicated by the Hon. Mr. Johnstone, is in accordance with the decision of the Portland Convention; while Mr. Howe's scheme proposes to make both the Quebec and Portland lines as "government works"—to be built, owned and operated by the government; the colony receiving the endorsement of the Imperial government upon its bonds issued for building the same.

The struggle between these two rival schemes in Nova Scotia, is now attracting the attention of the whole country; and from the indications in the papers of both parties, all feel that there are still great doubts existing as to the result.

The Hon. Mr. Howe addressed a very large assemblage at Portland last week, by invitation of the friends of the European and North American railroad, on the subject of railway improvement in the British Provinces. The Portland Advertiser, in speaking of Mr. Howe's speech, says of him: "Referring to the Portland Convention of 1850, and to the European and North American railway, he declared that this great object had, and still has, his hearty approval. He traced very clearly, the line of calculation and policy, which had induced him to seek the aid of the Imperial government for this purpose, and which had resulted in securing guarantees from that government, both for this line, and for the one of more immediate interest for the colonies, from Halifax to Quebec. By these means he believed that both could be, and would be constructed."

We have so often spoken against the policy of allowing states or governments to embark directly in the construction of railways, that we are not inclined in our present issue to enlarge upon the question, in relation to colonial enterprise. But it strikes us that Mr. Howe, in his last letter to Mr. Archibald, has yielded the whole ground to his opponents.

The ground, on which he attempted to justify his policy in regard to the European and North American railroad, was the want of ability on the part of the people of the colonies to raise the necessary funds for its completion. Now, every business man knows, that a money question is a question of security only. Money is plenty or scarce in proportion to the value and abundance of the security offered, or the want of it. Show a business community that a railroad will pay *six per cent.*, and you will have the money offered for it as soon as it is wanted. This, Mr. Howe and every railroad man will admit.

Mr. Howe, in his last letter to Mr. Archibald, says that "the Portland line will pay *six per cent* as soon as completed, and *ten per cent* in ten years time." If this is his opinion, and if this opinion is a correct one, why should he embarrass the question with government interference. Whatever may be the confidence felt in European countries, in the ability of a government to construct and manage railways and public works of a similar character,

that feeling of confidence is not felt in England, nor on this continent. The British government have assisted railways in some instances, by a loan of credit; and a similar policy has been adopted in Massachusetts, and other of the States of the American Union. Private enterprise having laid the foundation of a substantial credit, the government has loaned its assistance on the strength of this private security. A policy such as this, when prudently exercised, has always been successful. A most lamentable history of disasters has followed every instance, under our government, where a policy such as Mr. Howe advocates, has been attempted. The repudiation of Illinois, and other States, which have been imprudently led into specious and attractive schemes of government railroads, is too fresh in mind to need our repeating its history in the way of caution.

Railways in British North America.

Our columns are again largely occupied with the subject of railways in British North America. No one of our readers will regret the space we have given to these matters, which are daily attracting more and more the railway interests of Europe and America. We give the following extracts from our recent English exchanges to show the feeling in Great Britain in reference to this subject:—

From the London Morning Chronicle.

BRITISH NORTH AMERICA.

By the recent advices received from the British North American Provinces, it appears now certain that the proposed railroad communication between Halifax and Quebec will be carried out, and that the Legislatures of the several provinces will make the necessary arrangements for raising the required capital under the imperial guarantee of $3\frac{1}{2}$ per cent. For the construction of these lines, proposals have been made by contractors of the first eminence in Great Britain, who are prepared to make one or all of the lines required in the several provinces in any time that may be stipulated for, and upon such terms as may be fixed by the government or colonial engineers. Here, then, will be an investment of seven millions sterling open to capitalists—an investment to be guaranteed by our own government, at an interest of $3\frac{1}{2}$ per cent., and the money to be expended in our own colonies, under the superintendence of British authorities, affording a security which has no equal except in the national stock of Great Britain. Surely the dear-bought experience which our capitalists have obtained in their loan transactions with foreign governments, will induce them to prefer an interest of $3\frac{1}{2}$ per cent., secured to them at home, to the doubtful investments of 5 per cent. which have, and probably will again be, presented to them from abroad, in the shape of loans for various purposes, the integrity of which must depend, not only upon the good faith of the governments actually negotiating them, but upon their maintenance of the power by which they are enabled to contract such obligations—a result which, in the present state of Europe, is anything but certain. Neither should it be forgotten that every undertaking by which the mother country contributes to the development and importance of her colonies, adds so much strength to the national interests, not only by the profitable increase of commercial intercourse, but by the resources which such colonies, especially those of North America, will furnish in the event of any interruption to our intercourse with those nations of Europe or America from which we now draw many of those supplies which are indispensable to the maintenance of our naval power; in reference to which it is also worthy of observation that Nova Scotia and New Brunswick possess harbors which for capacity and security are unrivalled by any others on the coast of America—a most important advantage at all times, but especially so at this moment, when the Americans are putting forth their utmost to compete with our ocean steamers, and

to secure by shorter passages a monopoly of passengers across the Atlantic. The construction of the proposed railroad across Nova Scotia and New Brunswick will, however, give a new aspect to this rivalry; their boats must start from and return to Halifax, or the competition will be at an end. A rivalry honorable to both nations may still continue, but however the odds may turn, it is satisfactory to know that the interests of these important colonies will be efficiently served. The British government now pays for the conveyance of the North American mails between England and New York, £145,000 sterling per annum. By this arrangement 1,107 miles of sea are traversed more than are necessary. This will be obviated by the proposed railroads, and the correspondence of all Europe with all America, will be accelerated by 48 hours—a saving of one-fifth in the time now occupied in the transmission of letters between Liverpool and New York. That this enterprise is calculated to greatly extend and advance the commercial interests both of the British provinces in North America and of the mother country, cannot be doubted, and it is earnestly to be hoped that the capitalists of Great Britain will be found willing to co-operate in the promotion of a national object which affords them a secure investment for their money in her Majesty's dominions.

It will be perceived by the foregoing quotation that the whole idea turns upon the question of carrying out the plan of the European and North American railway, by "the construction of the proposed railway across Nova Scotia and New Brunswick," which is the principal, and the line to Quebec an incident, instead of making the Quebec line the prominent idea, and the European and North American railroad as a secondary affair.

In connection with this, the following paragraph on the same subject presents in a clear light the views we entertain in relation to ocean steam navigation, which is closely akin to the railway question under consideration:—

From the London Daily News, August 27.

Steam Communication between Ireland and America.

The friends of steam communication between Ireland and America seem to have hit upon the right way at last of fairly trying the great experiment they advocate. Instead of wasting time in vague declamation regarding the possible or probable advantages held forth by the scheme, and venting their ill-humor against the recent report of the Packet Station Commissioners, they appear to have resolved upon turning themselves at once into one or more joint-stock companies for the purpose of running lines of steamers from Galway or Cork, if not from both these ports to Halifax.

There has lately been a disposition manifested by several citizens of the United States, possessing more or less influence in their own country, to advocate the adoption of what are termed experimental trips by the American mail packets which now sail from New York to Liverpool, in order to test the practicability of bringing letters and passengers in a shorter time to London *via* Galway and Holyhead than is now consumed in the longer sea-route. We are by no means certain, however, that any important inference could be drawn from the most favorable result of such trials. The question to be solved is not whether the voyage from New York to Galway can be made in so many hours less than from Halifax to Liverpool, and whether the gain of time so attainable would compensate for the additional trouble of crossing Ireland by railway, and taking ship again to pass the Channel—but simply what is the shortest and surest transit from the westernmost shore of one hemisphere to the easternmost coast of the other. In the solution of this question the inhabitants of two continents are interested. All considerations of minor engagement and detail are, comparatively speaking, of little moment. Let it once be clearly and satisfactorily made out that intelligence can be brought, all the year round, twenty-four hours sooner from Washington on to Paris by a particular route, and by that route the intelligence will assuredly come, the arguments and palaverings of all public com-

missioners and private companies to the contrary notwithstanding.

We do not wish to be understood as merely implying that were a line of fast sailing steamers established to-morrow between an Irish port and one in Nova Scotia, the commercial intercourse of Lancashire with New York would necessarily be changed. In the main we believe that it would not. For goods traffic, the superior quality and cheapness of direct shipment must always be a governing construction; and for the great mass of travellers for business, with whom convenience is quite as important a matter as speed, many advantages will always be presented by a line of packets like those of Messrs. Cunard. On the other hand, if it be true as we have seen stated, and not, that we are aware, authoritatively denied, that the last named gentleman not very long ago offered to put a certain number of vessels on the Irish station in order to satisfy the demands to obviate the chance of competition by an Irish company, it may be assumed that there is probably a portion of their customers who they apprehend would avail themselves of the projected line in preference to theirs, were they enabled to do so. But we are fully convinced that the bulk of the remunerative traffic would arise from wholly different quarters.

A few of the wealthier and more impatient orders of society might, and probably would prefer the minimum of sea route. Travellers for pleasure might in summer choose in like manner to have a look at Ireland and New Brunswick, and in winter to be exposed to the fewest possible number of nights on the ocean. But the main support of such a line must be found in the middle and artisan classes, who now cannot dream of a voyage across the Atlantic in any other than a sailing vessel, and in less than three weeks or a month. Nineteen out of twenty men, women, and children, who year after year cross the mighty deep, are compelled to submit, some to the discomforts, others to the horrors, of such a passage. Yet these are emphatically the classes who can worst afford to lose time and health on shipboard. The emigrant agriculturist and artisan, who now pays from £5 to £10 each for miserable accommodation, and the fearful hazard of finding themselves at the end of a tedious voyage disabled from exertion, just when exertion is most required—these would hail with delight the opening of a bridge sufficiently broad to accommodate first-class tourists at £15 a head, and third class at £7. The poor man would save far more than the additional outlay by the improved mode of transport, in mere money; but in safety, time, and health, he would be a clear gainer. It is notorious that the large majority, of emigrants to British North America and the States, are from the sister country. This, therefore, forms an additional reason why the point of departure should be there, and not at an English port. But this is not all. With the inducement of expeditious, safe, and cheap communication, there cannot be a doubt that a considerable stream would soon get in the opposite way. Rapid and economical means of access is taken to quick and cheap means of intercourse by letter. What would be created and developed by the change would far exceed that which it tended to improve and facilitate merely; and it is our faith in this portion of the experiment more than any other that makes us glad to see our fellow countrymen in Ireland determining to do for themselves in this important matter.

The question may be asked how it is easier to make a sea-train containing first, second and third class accommodation, in suitable proportions—with a terminus at Galway instead of Liverpool? The answer is simple, and clear. Every hour saved on a long voyage, makes available a space otherwise necessary for fuel, which cannot otherwise be gained. The room thus obtained in a first-rate steamer, by shortening the voyage some twenty or thirty hours, obviously presents the facility for enlarging greatly the third cabin accommodation. The calculations on the subject are fully given in the evidence taken before Lord Granville's commission. We shall perhaps find an early opportunity for recurring to them.

In our treatment of the great questions which are in issue in British North America, we have opposed the views of Mr. Howe upon commercial

grounds alone. We have treated railway questions in the British Provinces, and the public men of the country, without any reference to political or personal relations.

We have frankly expressed our belief, that the plan of Earl Grey, as expounded by Mr. Howe, would be assented to by the Provinces, and that the line to Quebec would be built, or at any rate undertaken, and the work be commenced. And if the British government choose to build it as an Imperial measure, we should rejoice to see it completed. But if so undertaken and carried out, it will be a monument of imperial grandeur, not unlike the Chinese Wall of a former age. The idea is wanting in humanity, in popular favor, or commercial necessity. Still we cannot but admire the audacity of the men who, in spite of all these difficulties, have given to it so much of importance, and of popular *eclat*. We shall refer to it again at an early day.

Improvements in Furnaces.

Mr. G. F. Muntz, jun., of Birmingham, England, has just patented some improvements in furnaces applicable to the meltings of metals for making brass, yellow metal, and other compound metals. Mr. Muntz's invention has for its object the prevention of the loss from volatilization which occurs when melting and mixing metals (especially when zinc is employed) for the manufacture of brass and other similar compound metals, and consists in the adaptation to the melting furnaces of the two additional dampers, one in the bridge of the furnace, to shut off the communication between the fire and the metal; and the second between the melting-pot and the chimney. There is also an additional flue (provided with a damper) between the fire and the chimney, for carrying off the smoke and products of combustion when the bridge damper is closed. The mixing operation will be thus performed in a close chamber, and the loss from volatilization much lessened, if not entirely prevented.—*Claim*: The construction of furnaces for melting and mixing metals, for making brass and other compound metals, in which zinc forms a part, which will allow such metals when melted, and whilst being mixed, to be confined or nearly so, from the air, by the furnace being converted into a close chamber, thereby preventing a great deal of the loss which occurred from volatilization in mixing such metals in the furnace in use for this purpose previous to the date of this invention.

Steam Carriages on Common Roads.

A numerous meeting has been held at the Guildhall, Bath, England, for the purpose of hearing Messrs. Motley and Clarke give explanations of the details and presumed improvements and advantages of their patent steam carriage for common roads. Mr. E. Saunders took the chair, and after a short introduction by Mr. Motley, Mr. Clarke described the machinery by the aid of models and diagrams. They propose to place the machinery in one carriage, called a steam-dray, and the passengers in another, attached. Their boiler weighs only one cwt. per horse-power, will stand a pressure of 300 lbs. to the inch; and one of 15 horse-power occupies a space of only 2½ x 4 x 6 feet. The maximum speed they state at 15 miles an hour, average 10 miles, and ascending incline of 1 in 10 of 4 miles per hour. The steering apparatus moves the wheels, while the axle remains fixed, and they state they can stop instantly. The following letter, highly complimentary to Mr. Clarke, from Mr. Sims, the engineer of Redruth, dated June 12, was read to the meeting:—

"You have got with you a partner in the patent who is endowed with a highly inventive mind; and having myself noticed the various plans hitherto brought before the public, I have no hesitation in saying that the plans suggested to me by Mr. Clarke are very far superior to any others that have come under my notice. I have no doubt whatever that the steam-carriage for common roads will soon get extensively into use, and will be the most magnificent improvement with which the inventive ge-

nius of this great scientific country will astonish the world."

The chairman at the close of the explanations, expressed his willingness to assist in furnishing means for erecting an engine, and giving the patent a fair trial; and we understand it is proposed to raise the sum of £500, in sums of £5 and upwards, and to give the benefit of success to the first subscribers, in proportion to the sums subscribed; and the patentees are in sanguine expectation that the required amount will be obtained in Bath and Bristol in a few days.

From the Kolner Zeitung.

The Public Debts and Standing Armies of the European States.

The paper money now in actual circulation in Europe represents a value of 1,361,428,520 dollars. The total of the public debt is by far larger; it amounts to 11,397,096,000 dollars. Great Britain, (without the colonies,) bears nearly one-half of this gigantic burden, viz., 5,000,000,000 dollars.—The British army numbers 129,000 men; the fleet is composed of 678 vessels, with 18,000 guns. The detail of the debts and armies of the other European States is as follows:—

Spain—Debt, \$1,300,000,000; army, 160,000 men; fleet, 50 vessels, with 721 guns.

Austria—Debt, \$1,100,000,000; fleet, 156 vessels [including gunboats,] with 600 guns.

Russia and Poland—Debt, \$733,000,000; army, 700,000 men; fleet, 175 vessels and 440 gunboats, with 7,000 guns.

The Netherlands—Debt, \$731,000,000; army, 50,000 men; fleet, 125 vessels, with 2,500 guns.

Prussia—Debt, \$180,000,000; army, 121,000 men [war footing, 492,000 men;] fleet, 47 vessels and gunboats, with 114 guns.

France—Debt, \$1,330,000,000; army, 265,463 men; fleet, 328 vessels, with 8,000 guns.

Belgium—Debt, \$165,000,000; army, 90,000 men; fleet, 5 vessels, with 36 guns.

Portugal—Debt, \$160,000,000; army, 38,000 men; fleet, 36 vessels, with 700 guns.

Papal States—Debt, \$120,000,000; army, 19,000 men; fleet, 5 vessels, with 24 guns.

Sardinia—Debt, \$120,000,000; army, 38,000 men; fleet, 60 vessels, with 900 guns.

Naples—Debt, \$100,000,000; army, 48,000 men; fleet, 15 vessels, with 484 guns.

Bavaria—Debt, \$82,000,000; army, 57,000 men.

Denmark—Debt, \$80,000; army, 20,000 men; fleet, 33 vessels, with 1,120 guns.

Saxony—Debt, \$43,500,000; army, 25,000 men.

Turkey—Debt, \$40,000,000; army, 220,000 men; fleet, 66 vessels, with 800 guns.

City of Hamburg—Debt, \$34,000,000; army 1,800 men.

Grand Duchy of Baden—Debt, \$33,000,000; army, 18,000 men.

Hanover—Debt, \$30,368,000; army, 21,000 men.

Wurtemberg—Debt, \$28,000,000; army, 19,000 men.

Greece—Debt, \$25,000,000; army, 8,900 men; fleet, 34 vessels, with 131 guns.

Grand Duchy of Mecklenburg-Schwerin—Debt, \$10,000,000; army, 4,700 men.

Grand Duchy of Tuscany—Debt, \$10,000,000; army, 12,000 men; fleet, 10 vessels, with 15 guns.

City of Frankfurt—Debt, \$7,000,000; army, 1,300 men.

Duchy of Brunswick—Debt, \$6,803,000; army, 3,000 men.

Grand Duchy of Hesse-Darmstadt—Debt, \$6,200,000; army, 42,000 men.

Electoral Hesse—Debt, \$6,000,000; army, 11,000 men.

City of Lubeck—Debt, \$6,000,000; army, 490 men.

Duchy of Saxe-Weimar—Debt, \$4,000,000; army, 2,000 men.

Duchies of Schleswig and Holstein—Debt, \$4,000,000; no army; no navy.

Duchy of Anhalt Dessau and Koethen—Debt, \$3,500,000; army, 700 men.

City of Bremen—Debt, \$3,000,000; army, 500 men.

Duchy of Saxe-Coburg Gotha—Debt, \$2,556,000; army, 1,200 men.

Duchy of Saxe-Meiningen—Debt, \$2,500,000; army, 2,400 men.

Duchy of Nassau—Debt, \$2,000,000; army 3,500 men.

Duchy of Parma—Debt, \$1,800,000; army, 5,000 men.

Duchy of Anhalt-Bernburg—Debt, \$1,500,000; army, 300 men.

Duchy of Saxe-Altenburg—Debt, \$1,500,000; army, 1,000 men.

Norway—Debt, \$1,500,000; army, 23,000 men; fleet, 160 vessels, with 560 guns.

Grand Duchy of Oldenburg—Debt, \$1,200,000; army, 600 men.

Landgrate of Hesse Homburg—Debt, \$860,000; army, 350 men.

Principality of Schwarzburg-Rudolstadt—Debt, \$252,000; army, 540 men.

Principality of Schwarzburg-Sondershausen—Debt, \$60,000; army, 450 men.

Danubian Principalities—No debt; annual tribute to Turkey, 3,000,000 piastres; army, 6,800 men.

Servia—No Debt; tribute, 2,000,000 piastres; army, 3,000 men.

Sweden—No debt; army, 34,000 men; fleet, 340 vessels, with 2,400 guns.

Duchy of Modena—No debt; army, 3,500 men.

Principality of Lippe-Deimold—No debt; army, 820 men.

Grand Duchy of Mecklenburg-Strelitz—No debt; army, 800 men.

Principality of Reuss—No debt; army, 745 men.

Principality of Lippe-Schaumburg—No debt; army, 430 men.

Principality of Waldek—No debt; army, 520 men.

Principality of Lichtenstein—No debt; army, 60 men.

Switzerland—No debt; army, 69,500 men, a small number of whom only is in actual service.

Republic of San Marino—No debt and no army.

Statistics of the English Coal Trade.

The coal trade of Great Britain is the largest of any description of traffic probably in the world; it is stated by geologists, and admitted in the collieries, that the capability of supply is almost unlimited, and that there are drawing engines already working with power sufficient to raise 30 per cent. more coal than is brought up.

There are upwards of 3000 coal mines in Great Britain, which employ nearly 250,000 men, women and boys underground and above, termed hewers, putters, trappers, overlookers, bankmen, &c. The capital invested in working stock, tramways, staiths and harbors, altogether exceeds £30,000,000 in value; and the "get of coal," as it is technically termed, now amounts to upwards of 34,000,000 tons annually, the estimated value of which at the "pit's mouth," is £10,000,000. Of this enormous quantity, one-third is raised in the Northumberland and Durham districts, from which the chief exports of the kingdom are made by the rivers Tyne, Wear, and Tees, both foreign and coastwise. The chief points of home consumption are in the iron works of Staffordshire, South Wales, and the West of Scotland; which, together with the lesser works of North Wales, Shropshire, Yorkshire, and Derbyshire, consume nearly one-third of the whole. The residue is consumed in smaller manufactures generally, such as those of cotton and woolen, the gas and salt works, &c., and by the populations of large towns for domestic purposes.

Coals are exported duty free to British possessions and to foreign countries in British ships, or in foreign ships entitled to the privileges conferred by treaties of reciprocity; but a duty of 4s. per ton is chargeable upon coal exported in foreign ships, disintitled as above, and the total amount of such duties received during 1849, was only £3233 13s. 2d.

Vessels at Hartlepool and other ports on the east coast, are frequently cleared out at the Custom House before loading; and as a chaldron of coal, though computed at 2 tons 12 cwt., more frequently weighs 2 tons 15 cwt., it is well known that the actual quantity exported from thence far exceeds

the amount of tonnage registered in the Custom House. The policy pursued by the York, Newcastle and Berwick railway company, was to purchase the wagons and engines from every coal proprietor, and transact the whole business themselves; whereas other railway companies prefer the coal owners to build and keep each their own stock of wagons, thereby uniting their capital and interest with the prosperity and well working of the lines. The tolls and charges made by the railway companies vary considerably, from 1d. to 3d. a ton per mile. The proper mode of making charges to encourage the traffic, should be at so much per train of so many wagons, according to distance, gradients, and other circumstances connected with its transit. The mode of transacting the business varies in like manner in different districts. The York and Newcastle company, for instance, charge 3d. per ton "cell rent," and do all the business themselves, which includes clerkage, portage, unloading, shovels, selling and receiving payments on the delivery of coal to the public. Again, the Manchester, Sheffield, and Lincolnshire company charge 3d. per ton wharfage alone, whilst the Edinburgh and Glasgow company charge nothing for wharfage. The charge of demurrage of wagons also varies. Some companies allow 24 hours, others 48 hours, and afterwards charge 1s. to 5s. a wagon per diem. On the London and North-Western, the charges are not uniform, different districts having been accustomed to different usages; in the south the coal is stacked at the stations, whereas in the northern division it is almost invariably removed on arrival.

The shipments during the three years, 1847, 1848, 1849, amounted to upwards of 11,000,000 tons each year:—

	1847.	1848.	1849.
Coastwise... Tons	8,874,599	9,074,079	8,552,706
Foreign.....	2,483,161	2,785,300	2,785,300

Total.....11,357,760 11,859,379 11,338,006
In 1849 there were 12,074 vessels reported; and in 1850, 12,633.

Coal brought into London in the Year 1850.

Ships. Quality.	Tons.
2865 Newcastle Main.....	977,206
1585 Newcastle Wall's-End.....	445,712
734 Sunderland Main.....	193,523
2916 Sunderland Wall's-End.....	809,240
3220 Stockton, Middlesboro', &c.....	867,192
482 Blyth.....	112,555
36 Scotch.....	5,344
369 Welsh.....	89,574
254 Yorkshire.....	18,784
15 Liverpool.....	4,028
83 Small coal.....	20,786

12,559	3,543,944
13 Culm.....	2,936
62 Cinders.....	6,424

12,633 Total imported.....3,553,304

By canal..... Tons	29,479
London and North Western railway.....	44,865
South Eastern railway.....	5,286
Great Northern railway.....	4,944—84,574

Grand total.....3,637,878

The Lancashire coal-field produces about 4,000,000 tons annually, in the districts surrounding the towns named:—Wigan, 2,000,000 tons; Bolton, 1,000,000 tons; St. Helen's, 1,000,000 tons.

There are various qualities of coal, known under several denominations in different districts of the country; as, best, 2d best, Burgie, or engine coal, round, or nut coal, anthracite, Parrot, Cannel, slack, small coal, &c. Prejudices exist in the minds of the consumers of house coal—for example, in Birmingham and Glasgow, where a white ash coal has customarily been burned, the inhabitants decry a brown ash coal, whereas in London and Edinburgh a white ash coal is not tolerated.

The consumption in Manchester last year, 1850, amounted to 1,230,000 tons; in Preston, 410,000 tons; in Chester and its environs, 80,000 tons; and Birkenhead exported 50,000 tons. Glasgow consumed largely, 1,650,000 tons; and the surrounding neighborhood of Lanark, Renfrew, and Ayr-

shire, upwards of 3,000,000 tons; whilst the iron district of South Wales, in the aggregate, disposed of nearly 4,000,000 tons, exclusive of the exports of that district.

In London the prices are published, and may be seen on referring to the coal market reports in the *Mining Journal* and other newspapers (the present average price in the Pool is 14s. 6d. per ton); but the expenses attending the transmission of a ton of coal are not published, therefore we enumerate them:—

Cost price of a ton of best house coal.....	7s. 0d.
Freight, Newcastle to London.....	6 0
Insurance.....	0 1½
City dues.....	1 1
Half weighage.....	0 1½
Factory, 3d. <i>Del credere</i> , 1d.....	0 4
Barge, 1s. 8d., and portage, 2½d.....	10½
Wharfage.....	0 6
Allowance to buyer.....	0 6
Cartage and agent's commission.....	2 6=20 0

Emigration from Great Britain

A document just laid before Parliament, comprising the general results of the census of 1851, furnishes us with the following statistics of emigration from the United Kingdom, for a period of 26 years, ending with the close of 1850:—

Return, by the Land and Emigrant Commissioners, of the Emigration from the United Kingdom, during the 26 years from 1825 to 1850 inclusive:—

Years	To the Colonies.	To the United States.	To Australia and New Zealand.	Other places.	Total.
1825	8,741	5,551	485	114	14,891
1826	12,818	7,063	903	116	20,900
1827	12,648	14,526	715	114	28,203
1828	12,084	12,817	1,056	135	26,092
1829	13,307	15,678	2,016	197	31,198
1830	30,574	24,887	1,242	204	56,907
1831	58,067	23,418	1,561	114	83,160
1832	66,339	32,872	3,733	196	103,140
1833	28,808	29,109	4,093	517	62,527
1834	40,060	33,074	2,800	288	76,222
1835	15,573	26,720	1,860	325	44,478
1836	34,226	37,774	3,124	293	75,417
1837	29,884	36,770	5,054	326	72,034
1838	4,577	14,332	14,021	292	33,222
1839	12,658	33,036	15,786	227	62,207
1840	32,293	40,442	15,850	1,958	90,743
1841	38,164	45,017	32,625	2,786	118,592
1842	54,123	63,852	8,534	1,835	128,344
1843	23,518	28,335	3,478	1,881	57,212
1844	22,924	43,660	2,229	1,873	70,686
1845	31,803	58,538	830	2,330	93,501
1846	43,439	82,239	2,347	1,826	129,851
1847	109,680	142,154	4,949	1,487	258,270
1848	31,065	188,233	32,904	4,887	248,089
1849	41,367	219,450	32,191	6,490	299,498
1850	32,961	223,078	16,037	8,773	280,849
1851	..	..	..	..	56,584
To Mch 31	..	..	..	..	..
Total....	..	..	..	..	2,622,617

The returns does not distinguish the emigrants born in Great Britain from those born in Ireland.

Immigration for 1851.

The following is a comparative statement of the immigration at the port of New York for the first nine months of this year, [from the office of the Commissioners of Emigration.]

	1850	1851
January.....	13,154	14,709
February.....	3,206	8,170
March.....	5,569	16,055
April.....	14,627	27,779
May.....	42,846	38,858
June.....	10,762	34,403
July.....	34,446	27,512
August.....	18,092	30,251
September.....	21,054	33,586

163,756

251,323

163,756

More this year.....67,567

The increase of the last month over September of 1850, is 12,532. Of the total number, there were from Ireland, 15,985; Germany, 10,289; England, 3,589; Scotland, 1,064; France, 369; Wales, 269; Switzerland, 397; Holland, 678; Norway, 294, and from Sweden, 315.

Compensating Fly-Wheel.

The common fly-wheel, as ordinarily applied to steam-engines, carries the working parts through the dead points of the crank revolution effectually, and in a measure corrects the variations inseparable from a power communicated through a crank; but being fixed upon a shaft, it transmits all its uncorrected irregularity through any train of machinery connected with it, often to the detriment of fine manufactures, and rapid wear and tear of the gear work through which the power is transmitted. Mr. William Constable, of Brighton, has registered a fly-wheel, in which, while the hopeless task of compelling the fly-wheel to steadiness is abandoned—it being permitted to take up its oscillatory motion according to its caprice—the subsequent machinery is prevented from partaking in the slightest degree of the oscillations. There is a model, 3 feet diameter in the Great Exhibition. The wheel has three fixed arms, connecting the shaft with the circumference; and behind these are six other arms hanging loose upon the cylindrical end of the shaft. On the face of each alternate one of these arms lies a spiral spring, partially compressed between two studs, which, being drawn upwards towards the circumference of the wheel, forces the spring by means of a collar into closer compression. The bolt, which passes freely through the spring, is connected to a roller on the fixed wheel by a strap; and behind this is another roller, connected by a strap, which is not a cylinder, but has about one-fifth of its circumference taken off nearly flat, forming what the inventor terms an isodynamic curve, so formed that in its rotary motion a lever of resistance within it, through which and the strap the fixed arm acts against the force of the spring, shall become lengthened as that force increases—the curve offering in every position a lever of resistance proportional to the force of the spring. With these appliances, the inventor states a perfect uniformity of force is obtained; that the invention claims not merely to improve but to perfect the action of the reciprocating engine. It is simple, of easy and inexpensive construction, and but little liable to get out of repair. Engineers are strongly invited to inspect the model, as it is fully expected it will be immediately duly appreciated.

Iron Ore at the West.

We have seen a specimen of iron ore from the banks of Old Creek, in this county, superior, in the opinion of several iron masters, to any ore yet found in the Ohio Valley. It lies geologically, between the sand and iron rocks and near the bituminous coal. The stratum has already been excavated to the depth of three and a half feet, and the quality of the ore is improving. This deposit may prove as valuable as any gold vein in California. In digging a well of thirty feet deep, some hundred yards distant from and horizontally about 30 feet below this stream, the workmen passed through blue clay and globules of lead ore until they came to limestone rock. There are, on Old creek, a number of emigrants from Belgium, who have been accustomed to iron ores and furnaces. They pronounce this ore to be equal to any in Belgium.—*Cannelton Economist*.

Vincennes Railroad.

The Board of Directors of the Ohio and Mississippi railroad company adjourned yesterday after a session of several days. We learn that the St. Louis and Vincennes Company, in conjunction with the Directors of the Cincinnati and Vincennes road, have appointed Prof. O. M. Mitchell of Cincinnati, Chief Engineer of the road, with authority to choose his assistants, subject to the approval of the board. The right of way not having been secured, the board deemed it best not to locate the road until this was accomplished. As soon as the right of way is obtained, the whole line from Illinoistown to Vincennes, will be permanently located, at the first meeting of a full board. We also learn that there will be no difficulty in

putting the whole line under contract at once, upon very satisfactory terms, to wit:—one-half cash, one-fourth in bonds of the company, and the remaining fourth in stock of the road; the road to be completed in two and a half years. We most cordially congratulate the public upon the prospect of the speedy completion of this most important work. But it must be borne in mind that this result is not yet secured. The stock is yet to be greatly increased before the work can be even commenced. But the road is a work of absolute necessity to St. Louis, and must be made.—*St. Louis Int.*

Louisville and Memphis Railroad.

The Memphis papers of the 13th inst., come to us containing the proceedings of a large public meeting held at that place the evening previous, with a view of urging the early construction of a railroad from Memphis to Louisville, and to adopt the necessary measures to secure the full subscription of stock thereto. This is one of the most important railroad movements of the day, and we are glad that Memphis has at last aroused herself to her true interest and made a manifestation to co-operate with Louisville in efforts to connect the Ohio with the Mississippi at the above point. Louisville has shown by her acts the earnest with which she is embarked in the various railroad enterprises connecting her in all directions with the interior of the country on either side of the Ohio, and in opening a communication with the cotton regions in Tennessee. If Memphis will act as Louisville and her citizens have done, a new and better market will be offered to her for her cotton than she can obtain either at New Orleans or find upon the seaboard, by taking the Southern route.—All the manufacturers in Western New York and Pennsylvania, and in New England, desire to know is, that the cotton is here or at Memphis, to secure orders for all that may be for sale at either point.—From here they can receive their cotton at less cost of transportation and in one-half the time than if their purchases are made at New Orleans, and nothing but the apprehension that a supply will not be held over at Memphis to meet orders from the North, prevents permanent arrangements for purchases being made here. All that can be saved in transportation of course can be made to inure to the benefit of the producer, and this will give from three-fourths to a cent. a pound more to the planter by selling at Louisville, and taking the Northern route instead of seeking an outlet by sea.—*Louisville Courier.*

From the New Orleans Commercial Bulletin.

DONALDSONVILLE, June 26, 1851.

GLENDY BURKE, Esq.,

Chairman Committee on Railroads, etc.,

Sir: The enthusiasm that prevails at the present time on the subject of railroads in our State, and the favor with which was received a suggestion that I advanced to several influential gentlemen of New Orleans, relative to a new line of direct communication by railroad, between the city and the town of Washington, in the parish of St. Landry, induce me to take the liberty of submitting a rough outline of the proposed route, through you, to the committee which at the recent convention was appointed by the president "to prepare an address, setting forth all facts and statistics they can gather on all railroad projects, in which the State has a direct and immediate interest."

As it appeared to be generally conceded, prior to the assembling of our convention, that the scheme of a railroad communication between New Orleans and Jackson, via Baton Rouge, had good prospects of success, and that the line of its route would be along the eastern bank of the Mississippi, passing within a few miles of a point opposite the town of Donaldsonville, it occurred to me some time since, that a very advantageous modification might be made in the plan of communication by railroad between New Orleans and Washington, advocated by Col. Payne, by means of which these two important public enterprises might be made to lend a helping hand each to the other, and work in concert towards the grand result aimed at by the convention, and set forth in their resolutions—the equal and mutual advantage of city and country.

The proposition made by me, accordingly, was to effect a connection between the two contemplat-

ed lines, through a branch to be constructed from the Jackson road to the Mississippi opposite Donaldsonville, and through a steam ferry capable of receiving the train of cars from the Washington road at that point. The latter road I suggested should run as follows—from the point on the Mississippi just designated opposite Donaldsonville, and on the west bank of the Lafourche down that bayou three miles, then leaving the bayou through the Grand Bayou Pierre part and Grand River settlements to Grand river, 21 miles. Grand river to be crossed by means of a bridge; thence southwesterly to Grand lake, 9 miles; across that body of water, as across the Mississippi, by a steam ferry; thence to the Teche, three miles; and then following the route proposed by Col. Payne, up that stream through Franklin, New Iberia, St. Martinsville, Vermillionville and Opelousas, to the terminus at Washington, 70 miles, a distance all told of 103 miles from the point of departure on the Mississippi.

In favor of the adoption of this line, over any other which has yet been proposed, and more especially over that proposed by Col. Payne, many considerations of great weight may be offered. As my design is only to bring the attention of the committee to the subject, I shall content myself on this occasion with the briefest statement of the most prominent among them.

1st. By the route suggested by me, a saving of 78 miles of road would be effected.

2d. Several very expensive bridges would be dispensed with.

3d. No deep swamps or trembling prairies would be encountered.

4th. Upon the construction of only 21 miles of road, a direct communication could, within a few months, be established between New Orleans and the Attakapas parishes, rendering immediately available a large productive revenue.

5th. There would be secured to the Washington road the strenuous support and co-operation of all capitalists already enlisted in building up the Jackson road.

But however cogent and unanswerable may be these reasons, they will still be held secondary by the gentlemen of the committee who represent New Orleans—to any additional consideration which, in as far as they are concerned, must prove conclusive. The line now recommended, through its connection with the Jackson road, may be regarded as terminating substantially and in effect in the city, and its completion would, of necessity, go far towards enhancing the prosperity of New Orleans; while it must be manifest that the inevitable result of the success of Col. Payne's scheme would be the founding at Algiers of a dangerous commercial rival. Col. Payne's project will not therefore, I feel assured, receive any encouragement from the moneyed men of New Orleans, and without their support the country is entirely incompetent to undertake it. The route that I suggest harmonizes all interests, and should meet with equal favor on all hands.

You will permit me a few additional remarks in explanation.

1st. By the adoption of the line proposed by me, a saving of 78 miles in the length of the road—62 miles east and 16 miles west of the Mississippi would be effected as already stated. Now, accepting Col. Payne's data, you will perceive by this means alone an economy of \$780,000 is realised.

2d. But a further reduction of cost would be secured by the avoidance of the necessity of constructing two expensive bridges, which would have to be constructed on Col. Payne's route; one over the Lafourche, which could scarcely be built for less than \$100,000, and another over the Bayou Boeuf, which would call for the outlay of nearly \$50,000.

3d. It should be borne in mind that it is precisely over that portion of this Algiers route, which lies between New Orleans and the Teche, that the nature of the country presents the most formidable obstacles to a railway communication. I do not hesitate to assert, from my own personal knowledge, that the swamps of this region will present almost insurmountable difficulties to the passage of the road, in the direction indicated by Mr. Payne, and must increase far beyond the amount stated by him (\$10,000) the average cost per mile.

It is susceptible of demonstration, that by adopting the line advocated by me, these several reductions in the cost of the road could be effected—amounting in the aggregate to near \$1,000,000—a sum in itself more than sufficient to finish the other road its entire length. Are there any counterbalancing advantages attending the selection of the Algiers route which should entitle it to the preference of the committee? I have been able to discover none which could stand the test of serious examination. It has indeed been argued, and even assumed, that the support of the Parishes of Lafourche, Interior and Terrebonne would be gained to that project of communication, and a good deal of influence has been assigned to the assistance which they would furnish; but it seems to me clear that this has been done on promises unworthy of confidence. Lafourche Interior has an excellent channel of navigation, open for the greater portion of the year, and at no time more than partially interrupted.

To imagine that for the exclusive advantage of a dozen planters who would reside on the line of the road as it traverses that parish, the remainder of the inhabitants could be induced to submit to the system of taxation upon which so much stress is laid by some enthusiasts, is perfectly visionary; nor is it any less visionary to imagine that any considerable amount of Lafourche sugar would ever take this road to market, inasmuch as at that season when our crops are shipped to the city, the Lafourche planters have for the larger portion of the time, a cheaper, safer and more convenient communication with New Orleans than could be furnished them by artificial outlets. Terrebonne's geographical position is different, and the planters of that parish unquestionably rest under such inconveniences as might lead them to sustain Mr. Payne's projected road; but it should be recollected that they could be but partially benefited, unless as suggested by a delegate from that parish to the convention, a branch road were constructed along the bayou Terrebonne to connect with the main trunk of road—which trunk must involve an expenditure of at least \$200,000 to be added to the stupendous cost of the work, admitted by Colonel Payne's report to reach already \$1,000,000.

4th. You will observe that a smaller cost than would be required for the erection of the two bridges already spoken of, over the Lafourche and the Boeuf, and other bridges along the route—by the construction of 21 miles of road, from the Mississippi to Grand river, there could be opened within a year, to the people of Attakapas, a mode of cheap and easy communication with the city, which could not fail to bring in at once a handsome revenue, and at the same time inspire confidence in the practicability of the undertaking. If you will refer to Col. Payne's report, the committee will be competent to judge approximately of the amount of travel and freight available as a source of profit. On the other hand the committee should not lose sight of the fact, that should the scheme of Col. Payne be adopted, it would be utterly impossible to derive the least benefit from the road until after its completion from Algiers to the Lafourche, a distance of 60 miles, which, as I have stated, could not be done at a smaller preliminary cost than \$700,000—not including the bridge.

In conclusion, an act of the Legislature has authorized the incorporation of a company to run a railroad from the Mississippi to Grand river, and the State has liberally donated such lands as it possessed along the route—the different property holders through whose possessions the road would pass, have also volunteered the gratuitous cession of such lands as might be needed for the use of the road—an act has been signed for the formation of a company to build the road, but owing to the temporary excitement created in favor of Col. Payne's project, no steps have been recently taken to urge this scheme before the public.

But now that the question of opening a railway communication between New Orleans and the western portion of Louisiana has been transferred from the decision of popular assemblies to the calmer and wiser judgment of a select committee of practical men, I have thought as one of those who are interested in having the merits of the route via Donaldsonville fairly tested, that I would draw up for the use of the committee such a brief and

incomplete sketch as is herein presented to them, being fully prepared, however, whenever they may deem it advisable, to lay before them a more detailed statement of my views.

I am at this moment engaged in making a survey of the route adopted by the incorporated company just referred to—plans of which survey, and of others representing the entire route as suggested, will be forwarded to the committee, should they feel disposed to inspect them.

I am, sir, with the highest respect,
Your obedient servant,
A. J. POWELL.

American Railroad Journal.

Saturday, October 11, 1851.

Necessary Precaution.

Within the last few years, the railways of this country generally have accelerated the movement of their trains, and on some of the roads a speed of 30 miles an hour is maintained by express trains, and an actual speed of 40 miles an hour is made, between certain points on the line. The speed on our American railroads is equal to that adopted in other countries, except England, where the railway system has been brought to a higher degree of perfection than in any other country. While our railways are rapidly following the example of the English roads in their efforts at high speed, we are not adopting the same precautions to guard against accidents, as those required on all the roads in England.

We were pleased, however, in passing over the NEW YORK AND NEW HAVEN Railroad recently, in their express train, to notice that one precaution or practice had been introduced, such as is practiced on the express trains in England, to test the soundness of the cast iron car wheels. At every stopping place, a man passes under the cars, and with a small hammer strikes each wheel, so as to bring out a clear ring of the metal, if it is sound, and free from flaw or fracture. In case of defect, the blow of the hammer discloses it, and a new car is substituted.

This practice is common in England, and should be adopted in this country. The breaking of the car wheel is a cause of frequent accidents on our railways, and every possible precaution should be enjoined on those having the safety of the lives and property of the community in their keeping.

Pattern of Rail.

A friend recently returned from England informs us that the London and North Western railway company have recently relaid some thirty miles of their track with a large rail of the *bridge* or *fl* pattern, with a longitudinal wooden sill, forming what is called the *continuous bearing track*, similar to that of the Great Western railroad.

This work has been done under the advice of Robert Stephenson, the engineer, and is regarded as indicative of a change in the opinion of the great advocate heretofore of the H rail, or the T rail with the common cross-tie shape. We notice this fact as one of interest to the engineering profession and to the whole railway public. Some diversity of opinion exists upon this question among the best informed engineers of the country, and every fact bearing on the question is a matter of interest to all. We wish some of our companies would institute a series of experiments to test the comparative merits of the different patterns of rail now in use. In our haste to get roads in operation, very little thought is expended on the many economical questions which so essentially affect the actual value of our roads.

Stock and Money Market.

The condition of the money market has slightly improved since our last, both in New York and Boston. The prevailing opinion is, that this favorable turn of things indicates the commencement of a permanent improvement. The exportation of specie is diminishing, while the receipts of gold from California are increasing. No safe conjecture, however, can be made until we are better informed as to the extent of our foreign indebtedness. Here lies the great disturbing cause. In the bond and stock market but little or nothing is doing, except in the fancies. In bonds of railroads, and of municipal corporations, nothing is doing, and we advise companies to keep out of the market for some months to come, as securities cannot be negotiated in the present state of things. Many companies can much better afford to suspend work than to pay the rates for money now asked. The rail market is dull, and is likely to continue so till money is more abundant.

Notwithstanding the great scarcity of money, the receipts on nearly all our railroads and canals are far in advance of last year.

Hartford and New Haven Railroad.—The receipts of the Hartford and New Haven railroad for the month of September, 1851, were \$55,590. For September, 1850, \$47,057. Increase \$8,433.

Cleveland and Columbus Railroad.—The earnings of the Cleveland and Columbus railroad for the month of September were about \$70,500; of this there was received from passengers \$46,606 43, which is a large increase, nearly \$8,000, over the month of August. This road is 135 miles in length.

Rutland and Burlington Railroad.—The earnings of the Rutland and Burlington railroad for the month of September, were \$45,392 12. In the same month last year \$21,323 00.

Gain this year \$24,069 12
Or more than 112½ per cent.

Columbia Railroad.—The following shows the collections at the Philadelphia office of the Columbia railroad:

Amount as per last report \$250,157 20
Amount month ending Sept. 30, 1851 35,700 46

Whole amount since Nov. 30, 1850 \$315,857 66
Same time last year 275,104 35

Increase \$40,753 31

New Haven and New York Railroad.—The earnings of the New Haven and New York road show a large gain over last year. The figures are:

Passengers \$58,866 43
Paid Harlem road 4,532 45

\$54,333 98
Freight and Commutation \$8,047 40

\$62,381 38
Sept., 1850 \$46,210 19

Increase in 1851, 35 per cent. \$16,171 19

Erie Canal.—The amount received for tolls on all the New York State canals during the 4th week in September, is \$122,655 86
Same period in 1850 137,062 96

Decrease in 1851 \$14,407 10

The aggregate amount received for tolls from the commencement of navigation to the 30th September inclusive, is \$2,398,541 85
Same period in 1850 2,162,190 33

Increase in 1851 \$236,351 52

Michigan Southern Railroad.—The earnings of the Michigan Southern railroad company for August and September compare with the corresponding months of last year as follows:—

	1850.	1851.
August.....	\$16,417 27.....	\$24,197 48
September.....	20,483 81.....	35,228 33
Total.....	\$36,901 08.....	\$59,425 76
		\$36,901 08

Increase \$22,524 68
Being over 60 per cent.

Norwich and Worcester Railroad.—The receipts of the Norwich and Worcester road for September were larger than we intimated a few days ago, and show a very gratifying gain over last year. The figures are:

	Sept. 1851.	Sept. 1850.
Through Travel....	\$2,007 03.....	\$1,214 85
Local Travel.....	11,235 43.....	11,126 60
Freight.....	14,574 20.....	11,337 15
Mail &c.....	1,059 46.....	2,129 58

Total..... \$28,876 12..... \$25,805 18
Showing a gain of \$3,070 94, equal to 12 per cent.

The through travel, it will be seen, continues to show an increase.

Little Miami Railroad.—The receipts of the Little Miami railroad for September were as annexed:—

	1851.	1850.
Sept. 1 to 7.....	\$10,296 92.....	\$9,420 23
Sept. 8 to 14.....	10,684 67.....	9,620 28
Sept. 15 to 22.....	11,726 29.....	10,378 71
Sept. 23 to 30.....	14,311 89.....	9,561 21

Total..... \$47,019 77..... \$38,979 43
38,979 43.....

Increase in 1851. \$8,040 34, eq'l, to 21 per ct.
The above is a very large receipt for a road of only 85 miles in length, and having a capital and debt of only \$2,150,000.

Harlem Railroad.—The receipts of the Harlem road continue to show a very favorable increase. The figures for September are as follows:

1851..... \$59,005 09
1850..... 46,222 46

Increase 30 per cent. \$12,782 63

Baltimore and Ohio Railroad.—The following are memoranda of the business upon the the Baltimore and Ohio railroad, for the month of September, 1851.

	For Passengers.	For Freight.
Main Stem.....	\$36,878 35.....	\$89,589 04
Washington Branch..	22,935 05.....	7,461 15

\$59,813 40 \$97,050 19

Making an aggregate of \$126,467 39 on the Main Stem, and \$30,396 20 on the Washington Branch. The total being \$156,863 59.

The above, compared with the corresponding month of last year, shows a decrease of \$1,524 96 on the Main Stem, and \$5,825 53 on the Washington Branch.

Delaware and Hudson Canal.—Receipts of coal over the Delaware and Hudson Canal up to October, 1850..... 597,945 tons.
To same date in 1850..... 341,068

Increase this year..... 256,877 tons.

Ohio and Pennsylvania Railroad.—The number of passengers carried over the Ohio and Pennsylvania road for the week ending 9th September, was 3,004. The road is being pushed forward to Alliance with vigor. It will probably reach that point on the 15th Dec.

Columbus and Xenia Railroad.—The receipts on the Columbus and Xenia railroad for the month of September were \$29,500. The length of this road is 54 miles.

The Evening Journal gives the annexed statement of the quantity of flour, wheat, corn and barley, left at tide water during the 1st week in October in the years 1850 and 1851, as follows:

	Flour. bbls.	Wheat. bush.	Corn. bush.	Barley. bush.
1850...	130,466	210,877	110,458	176,635
1851...	95,449	149,382	253,385	121,461

Dec....35,017 61,495 Inc. 142,927 de.55,174

The aggregate quantity of the same articles left at tide water from the commencement of navigation to the 7th Oct., inclusive, during the years 1850 and 1851, is as follows:

	Flour. bbls.	Wheat. bush.	Corn. bush.	Barley. bush.
1850...	1,781,511	1,443,540	2,967,610	789,865
1851...	2,293,834	1,945,906	6,439,756	494,944

Inc.... 512,323 502,366 3,472,146 dec.294,921

The aggregate quantity of the same articles left at tide water from the commencement of navigation to the 7th Oct., inclusive, during the years 1849 and 1851, is as follows:

	Flour. bbls.	Wheat. bush.	Corn. bush.	Barley. bush.
1849....	1,844,320	1,271,460	4,284,265	366,409
1851....	2,293,834	1,945,906	6,439,756	494,944

Increase. 449,514 674,446 2,155,491 158,535

By reducing the wheat to flour, the quantity of the latter left at tide water this year, compared with the corresponding period of last year, shows an increase of 612,796 bbls. of flour.

Report of the Mining Intelligence Association.—Before the Board at the Mining Intelligence and Copper Stock Exchange Office, Eagle Harbor, Michigan, Sept. 4th, 1851.

Name of company.	Asked.	Offered.	Sold.
Copper Falls.....	\$12 00	11 00	
Pittsburgh and Boston (Cliff).....	120 00	115 00	
North American (old stock).....	31 00	30 00	
Minnesota.....	175 00	170 00	
North West.....	33 00	32 00	
North Western.....	12 00	11 00	
Phenix.....	7 50	7 00	
Ridge.....			8 50
Adventure.....	9 00	8 50	
Iron City.....	6 00	5 50	
Forest.....	7 00	6 50	
Cape.....	3 00		
Farm.....	5 50	5 00	
Algomah.....			2 87½
Toltec.....			3 00
Medora (Agate Harbor).....	3 50	2 00	
Bluff.....	1 50	1 25	
Aztec.....	7 50	7 00	
Ohio.....	6 00	5 50	
Eureka.....		3 00	
Douglass Houghton.....	7 50	6 50	
Winthrop.....	2 50	2 00	
Lac la Belle.....	3 00	1 75	
Forsyth.....			3 00
Quincy.....	4 00	3 00	
Star.....	2 50	2 00	
Manpan.....	2 00	1 75	
New York and Michigan.....	2 00	1 75	
Dakota.....	1 50	1 00	
Ohio Trap Rock.....	9 00	8 00	
Norwich.....	4 50	4 00	
Piscataqua.....	5 00	4 00	
Bohemian.....	6 00	5 00	
Ontonagon.....	5 00	4 50	
Peninsula.....	7 50	7 00	
Avery.....	2 00	1 50	
Fire Steel.....	1 50	1 00	
Algonquin.....	4 00	3 50	
Siskowit.....	8 00	7 00	
Colling.....	3 50	2 75	

—Lake Superior Journal.

The Pennsylvania Coal Trade.—The Anthracite coal trade is still active in this State. The Reading railroad transported during the week ending Thursday, Sept. 25th, 40,959 tons and the Schuylkill Navigation Company, for the week ending Oct. 2d, 15,092 tons. The Lehigh Company brought down 27,523 tons for the same week.

The amount of coal shipped from the mines from the opening of navigation up to the dates specified above, has been as follows:—

By Reading railroad.....	1,331,067 tons.
" Schuylkill Canal.....	437,150 "
" Lehigh Canal.....	767,468 "

Making a total of.....2,535,685 tons.

Gold from California.—The arrivals of gold from California are fully up to the expectations of those interested. By the three arrivals we have probably received some two millions eight hundred thousand dollars in gold, as follows:

Prometheus.. On freight.....	\$150,000
Hands of passengers.....	450,000
Ohio..... On freight.....	1,435,000
Hands of passengers.....	415,000
Empire City. On freight.....	100,000
Hands of passengers.....	250,000

Total.....\$2,800,000

Railway Share & Stock List;

CORRECTED WEEKLY FOR THE

AMERICAN RAILROAD JOURNAL.

NEW YORK OCTOBER 11, 1851.

GOVERNMENT AND STATE SECURITIES.

U. S. 5's, 1853.....	101½
U. S. 6's, 1856.....	104½
U. S. 6's, 1862.....	109
U. S. 6's, 1862—coupon.....	114½
U. S. 6's, 1867.....	115½
U. S. 6's, 1868.....	116½
U. S. 6's, 1868—coupon.....	122½
Land Warrants.....	140a145
Arkansas 6's.....	52a53
Alabama 5's.....	91a92
Indiana 5's.....	79
Illinois 6's, 1870.....	65a68
Kentucky 6's, 1871.....	105a106
Massachusetts sterling 5's.....	105a106
Massachusetts 5's, 1859.....	100½
Maine 6's, 1855.....	103
Maryland 6's.....	102½
Michigan.....	—
Mississippi.....	—
New York 6's, 1855.....	103½
Ohio 6's, 1860.....	107
Pennsylvania 5's.....	91

RAILROAD BONDS.

Atlantic and St. Lawrence, 6 per cent.....	85
Baltimore and Ohio, 1867.....	94½
Boston and Providence 6's, 1855.....	101
Boston and Worcester 6's, 1855, convertible.....	107½
Bost., Concord and Mont. 6's, 1860, mortgage.....	87½
Cheshire 6's, 1860.....	91½
Connecticut River 6's, convertible.....	98
Erie 7's, 1859.....	96
Erie 7's, 1868.....	108½
Erie income 7's.....	89
Hudson River 7's, 1853.....	101½
Michigan Central, convertible, 8's, 1856.....	104½
New York and New Haven.....	100½
Norwich and Worcester, mortgage, 1860.....	80a85
Old Colony, 1854.....	97½
Ogdensburg 7's, 1859.....	90
Portsmouth and Concord.....	80a85
Passumpsic 6's, 1859.....	94½
Rutland 7's, 1863.....	97
Reading mortgage, 1860.....	80
" " 1870.....	75
Sullivan, mortgage 6's, 1855.....	75
Vermont Central 6's, 1852.....	93
" " 6's, 1856.....	88
Vermont and Massachusetts 6's, 1855.....	85

RAILROAD STOCKS.

[CORRECTED FOR WEDNESDAY OF EACH WEEK.]

	Oct. 1.	Oct. 8.
Albany and Schenectady.....	89½	90
Atlantic and St. Lawrence.....	60a65	—
Androscoggin and Kennebec.....	30a35	—
Boston and Maine.....	106	102½
Boston and Lowell.....	109	109
Boston and Worcester.....	100	100½
Boston and Providence.....	84½	8 6
Bost., Concord and Montreal.....	40	—
Baltimore and Ohio.....	71½	—
Baltimore and Susquehanna.....	36	—
Cheshire.....	53	—
Cleveland and Columbus.....	—	—
Columbus and Xenia.....	—	—
Camden and Amboy.....	—	—
Connecticut River.....	60	—
Delaware and Hudson (canal).....	—	—
Eastern.....	95	92½
Erie.....	73½	76½
Fall River.....	92½	93½
Fitchburgh.....	108½	108½
Georgia.....	—	—
Georgia Central.....	—	—
Harlem.....	63	65½
Hartford and New Haven.....	124	—
Housatonic (preferred).....	52	—
Hudson River.....	68	71
Kennebec and Portland.....	50a55	—
Little Miami.....	—	—
Long Island.....	13	14½
Mad River.....	—	—
Madison and Indianapolis.....	92	92½
Michigan Central.....	104	104
Montgomery and West Point.....	—	—
Michigan Southern.....	—	—
Manchester and Lawrence.....	97	89
Morris (canal).....	14½	13½
New York and New Haven.....	104½	107
New Jersey.....	133	—
Northern.....	65	66½
Nashua and Lowell.....	107½	—
New Bedford and Taunton.....	111	—
Norwich and Worcester.....	45½	48½
Norfolk County.....	20	10
Ogdensburg.....	30	31
Old Colony.....	65½	66
Passumpsic.....	80	73
Pennsylvania.....	—	—
Pittsfield and North Adams.....	95	—
Philadelphia, Wilm'gton & Balt.....	28	26
Petersburg.....	—	—
Richmond and Fredericksburg.....	—	—
Richmond and Petersburg.....	—	—
Reading.....	52½	53½
Rochester and Syracuse.....	105	104½
Rutland.....	41	40
Stonington.....	40½	41½
South Carolina.....	—	—
Syracuse and Utica.....	123½	—
Sullivan.....	25	—
Taunton Branch.....	108	—
Troy and Greenbush.....	90	—
Tonawanda.....	—	—
Utica and Schenectady.....	127½	127½
Vermont and Canada.....	97	99½
Vermont Central.....	26½	26
Vermont and Massachusetts.....	25	25
Virginia Central.....	—	—
Western.....	102	102
Wilmington and Raleigh.....	—	28½
York and Cumberland (Pa.).....	20	—

MR. GALT, the President of the St. Lawrence and Atlantic railroad, arrived in this city in the afternoon train yesterday, coming from Montreal by way of Melbourne and Gorham. We learn through him, that the Montreal end of the line will be opened for business without fail next week, as far as Melbourne,—that the particular route and place of junction, of the two lines, is definitely settled by the two boards, and that the ruling that is, *heaviest rising gradient* from Montreal down to Portland, the whole distance from city to city, will be *forty-five feet per mile*, and no more. Further, the ruling rising gradient from Portland up to Montreal, will not exceed *sixty feet to the mile*. This is a most extraordinary state of things, when we take into consideration, that this railway

not only passes the *White Hills*, but also the high-lands of the treaty of 1783.—*Boston Atlas*.

Commerce of New York.

From a comparative statement of the imports at New York in the first three quarters of the current year, and of 1850, it appears that the amount of merchandise exclusive of specie imported in the present year is greater than that imported in the same period of last year by \$11,221,784; and that the amount of duties paid in that city in the nine months of the present year, was \$26,012,720, in place of \$23,250,234 paid in the same period of last year; showing an increase of \$2,792,486.

The following statements from the Journal of Commerce show the amount of imports in the month of September in each of the last six years, of dutiable and free goods, and also of specie, and also the quarterly amounts for the two last years:

Imports at New York for September.

	Dutiable.	Free.	Specie.	Total.
1851.	\$10,053,476	366,153	2,769,726	13,181,355
1850.	9,310,023	1,273,878	2,046,846	12,630,247
1849.	7,887,190	226,188	488,435	8,602,813
1848.	8,168,294	543,749	197,098	8,879,141
1847.	8,111,845	917,109	94,546	9,122,500
1846.	5,272,923	600,849	10,044	5,883,810

As shown above, the falling off for the last month has been in free goods, the item of dutiable exhibiting a considerable increase. Thus while the actual value of merchandise received is \$115,550 less than for September, 1850, the receipts of duties are \$114,590 20 larger, the total for September, 1851, being \$2,609,532 97, against \$2,494,242 77, the amount received during the same month last year. The following will show the comparative imports, exclusive of specie, for the three-quarters of the calendar year which expired with the 30th of September:

Imports at New York for Nine Months.

	1850.	1851.	1850.	1851.
	Dutiable.	Dutiable.	Free.	Free.
1st qr.	\$26,320,278	35,793,788	2,414,445	3,128,216
2d qr.	23,766,738	28,305,746	2,097,397	2,009,428
3d qr.	37,595,935	36,127,070	2,019,639	2,031,968
	\$88,692,951	100,226,604	7,481,481	7,169,612
Add free	7,481,481	7,169,612		
	\$96,174,432	107,396,216		

This makes a total increase for the three quarters of \$11,221,784, although for the three months just closed there is a decrease of \$1,456,536.

Virginia.

Blue Ridge Tunnel.—The Tunnel throughout the Blue Ridge in Virginia, by which the Central railroad is to be connected with the great Valley at Staunton, is a most difficult, slow and expensive work. The editor of the *Richmond Enquirer*, who visited it last week, thus speaks of it:—

The Tunnel has, thus far, been cut entirely through solid rock and of the hardest kind—a dark bluish schistose, slaty greenstone, of most irregular fracture. On the eastern side, where the mountain has been perforated some 250 feet, the rock is very compact, and no walling is necessary. On the western side, where the mountain is perforated about 450 feet, the rock is not so solid, but is composed of shifting strata, which require, in many places, walling up—and for this purpose, limestone blocks have to be hauled some 6 or 7 miles. The Tunnel is about 20 feet wide and 30 feet high, arched at the top. About 120 hands are employed night and day; being divided into three parties, 20 on each side; each party working eight hours. While on the western side the mouth of the Tunnel comes directly into the valley, on the eastern side it is necessary to overcome enormous difficulties, such as cutting off spurs, filling up precipices, &c. At the entrance of the Tunnel, there will be an immense embankment at least one hundred feet high and curved. Before reaching the eastern mouth, it has also been found necessary to cut other shorter tunnels through the interposing spurs of the mountains. The grade from Mitchum's river, the "eastern base" of the ridge, to the Tunnel, is 70 feet per mile. It is calculated that the Tunnel will

not be completed in less than four years—it being impossible to work more than a limited number of hands.

Kentucky.

The Railway to Lexington.—We learn that the late meeting of the Directors of the Covington and Lexington, and Maysville and Lexington railroads, failed to make agreement for the construction of the track from Paris to Lexington. The Covington Company, says the *Covington Journal*, proposed to do the work at given prices, or to let the Maysville company do the work at the same prices. The latter Company had contracted with Nash, Seymour & Co. for portions of the work at prices much higher than those proposed by the Covington company, and they insisted that whatever damage accrued from putting an end to that contract, should be borne by the Covington company. This the latter Company refused to pay, as they did to leave he amount to arbitration.—*Cincinnati Gazette*.

Maysville and Lexington Railroad.—Progress of the work.—The Directors yesterday affected satisfactory arrangements for putting on a large additional force of hands, some four or five hundred, in view of expediting the graduation of the railroad between Paris and Lexington.—They will be set to work in a week or ten days, or as soon as the shanties can be prepared for their accommodation; and it is expected that the grading between Paris and Lexington will be completed in about eight months and the road completed between those points in twelve months from this time. We congratulate the public on such a display of energy on the part of the Directors.

The progress of the work at this end of the line is gratifying. Rapid progress has been made in constructing the heavy culvert across Limestone creek and the embankment across its valley. The efficient contractors have also made a prodigious impression upon the heavy summit cut at the head of Limestone, near Dimmitt's pond.—*Maysville Eagle* of the 30th ult.

The Branch Railroad to Harrodsburg.—Friday next (Oct. 3d) is the day for the adjourned meeting, at Lawrenceburg, of the delegates appointed at the several meetings held in Mercer, Anderson, Shelby and Franklin counties, in favor of a railroad from Harrodsburg to connect with the Frankfort and Louisville railroad at some point to be designated by the company of the latter road.

The survey which has been made of the route from Harrodsburg to Frankfort shows it to possess many advantages; the road will be unexpectedly short—less than 33 miles long, and only three-fourths of a mile longer than the shortest road now travelled—and for almost the whole distance of easy and cheap construction. Except for a short distance in going up Cedar run (which will be somewhat more expensive,) it is believed that the whole road can be made at an average cost of \$17,000 per mile. This is far cheaper than the general cost of railroads in Kentucky; and the three counties, with the aid of which the Louisville and Frankfort company will give, can build the road and secure all its advantages of conveniences in travelling, an easy access to market, and a great increase in the value of real estate throughout the whole region of its route, without ever feeling the cost of it the least burdensome upon their citizens.—*Frankfort Commonwealth*.

Ohio.

Eaton and Piqua Railroad.—The directors of the Eaton and Hamilton railroad, at their meeting on Tuesday last, says the *Eaton Register*, resolved to take immediate steps to locate and let the branch road to Piqua. They also resolved, so soon as \$150,000 should be subscribed for the branch, to consolidate the Hamilton and Eaton and the Piqua companies into one.

Population of St. John, N. B.

A census of the city of St. John, New Brunswick, recently completed gives a population of 43,000, including the suburb of Portland. This gives a population somewhat greater than any previous estimate we have noticed.

Richmond and Danville Railroad.

The *Richmond Dispatch* noticing the effects which will result upon the completion of the Richmond and Danville Railroad to that section of country which it traverses, thus alludes to that portion of North Carolina which, in a great measure, will seek it as a channel to market:

"When we pass beyond Danville into North Carolina, we find still a very rich country, of the productiveness of which the inhabitants themselves have an imperfect idea. The people there live in abundance. They have no need of exertion beyond their domestic wants. They send some tobacco, at great expense and trouble, to market, and that is all. They have nothing to stimulate them to exertion beyond this, and their extremely productive lands are but very partially cultivated. The counties of Caswell, Person, Guilford, Rockingham and Stokes, in North Carolina, will all be tributaries to the Danville Railroad, even should that road never go beyond Danville: and these counties are among the richest of the North State. Should the road continue, as we are sure it ultimately will, to the South Carolina line, it will pass along the richest part of North Carolina, including the great valley of the Yadkin."

Missouri.

Pacific Railroad.—About forty miles of this road are under contract, and there are now more than 1,000 laborers employed upon it. Thomas Allen, Esq., the President of the company, has just returned from the east, where he contracted for the rails, locomotives and other machinery; and before the end of one year from the commencement of the work, a portion of the road will probably be opened for travel.

Hannibal and St. Joseph Railroad.—The board of directors of this company, met at Linneus on the 15th Sept., and resolved to begin the survey and location of the road immediately, and to commence the work by breaking ground at the Hannibal terminus on the first Monday in November.—They also appointed a committee to invite numerous distinguished guests to be present and participate in the important ceremony. It is expected that Gen. David R. Atchison will preside on the occasion, and Hon. Henry S. Geyer deliver an oration.

We learn that the most perfect unanimity of sentiment and action prevailed in the board—not the slightest feeling of dissension existed—they were united upon every measure. From the returns and data laid before the board, it appears that the amount of stock subscribed, reaches to near \$700,000, and it is confidently believed that the amount will be swelled to \$1,000,000 by the first of November. The greatest enthusiasm, we understand, exists among the people along the whole line of the road, and it is expected they will turn out almost *en masse* to witness the ceremony of breaking ground on the first Monday in November.—*Missouri Cour.* of Sept. 25th.

Virginia.

North Western Railroad.—The Parkersburg, [Va.,] *Gazette* says the second party of engineers have arrived and commenced surveying the route for the North Western railroad. This corps is under the direction of Mr. Hoffman, division engineer. The *Gazette* says that as far as the engineers have progressed in their surveys, they find routes entirely practicable.

Canada.

Toronto and Guelph Railroad.—The people of Toronto have determined on recommending the Corporation of that city to take stock to the value of \$500,000 in the Toronto and Guelph railroad. The effect of success would be to attract to the above cities the trade of an extensive country unsurpassed for fertility.—On the 15th of October the first sod will be turned in presence of the Earl and Countess of Elgin and Kincardine.

Ohio.

Sandusky City and Newark Railroad.—This railroad, as far as Mansfield, has been relaid with a T rail, which is now laid on the entire length of 116 miles. The Sandusky Mirror says:

"It is now, in every respect, one of the best and most perfect roads in the United States, and we are gratified to learn it is doing a prosperous business. It passes through the richest agricultural region in Ohio, and reaches the rich mineral district of the State. The foundation of its permanent prosperity is therefore secured beyond all contingency. No rival track can destroy the business of a road relying on the country through which it passes for its business. Fifteen thousand bushels of wheat per day are now arriving on this road, with a large quantity of flour and other rolling freight. Large quantities of wheat are brought to this market from Utica, 13 miles from the Ohio canal, and it will come in freely from Newark, the very bank of the canal, as soon as the warehouse accommodations are completed at the depot of the railroad, thus showing the superiority of railroads over canals for transporting the heavier articles of freight."

Steamboat vs. Railroad Speed.

The steamer *New World*, under command of Capt. ACKER, made a quick run from New York by this city yesterday. She left her dock at the former place at five minutes past seven o'clock, and arrived opposite her berth in this city at two o'clock and thirty-six minutes. The eight o'clock train from New York on the Hudson River road passed the *New World* a few miles from the city, but the passengers only reached this city a few minutes before the *New World* landed hers. The *New World* has made the quickest trip on record. Seven hours and thirty-one minutes is her time from dock to dock. She made six landings, each of which occupied on an average about six minutes, making her running time *six hours and fifty-five minutes*! This is nearly equal to railway speed.—*Albany Jour.*

Trial of Locomotives.

We copy from the Boston Courier the following account of the trial which recently came off on the Lowell railroad, to test the comparative speed of several locomotive engines. A subsequent trial has also been had upon the same road to test the capacity for draft of several freight engines. A committee, composed of practical and scientific men, was appointed for the purpose of preparing a report, which has not yet been made public.—When it appears, we shall present our readers with a copy.

A locomotive race is an unusual occurrence; in fact, we believe nothing of the precise kind of this one ever took place in this country. There were to be two trials, one for speed and the other for draught. The one for speed came off on Wednesday, Oct. 4th, and drew together a large number of spectators.

The course of the race was on the Lowell railroad, commencing at the Wilmington depot, or 15th mile post, and terminating at the 24th mile post in Lowell—running distance exactly 8 miles and 3616 feet. Each engine drew a train of 170,000 pounds, or 85 tons, exclusive of its own weight and that of the tender, equal to six large passenger cars loaded.

The regulations were as follows: The balances to be tested on all engines, and result of the examination to be recorded.

The engines to work as near 100 pounds per square inch as may be, but may work at pressures at between 80 and 120 pounds if required, the difference to be recorded, and the pressure to be maintained at the initial pressure, during the experiment.

The load to be constant, and equal to six loaded passenger cars. The test to be by the speed with which the constant load is carried over a certain distance, said speed being corrected according to the weight of the engines.

The following engines competed:—The Addison Gilmore, 26 tons, with one pair of driving wheels,

6 feet 9 inches in diameter—built six months ago at Springfield, by the Western railroad co.; the Nathan Hale, 23½ tons, 2 pair driving wheels 5½ feet diameter, built at Wilmarth's Union Works, South Boston, and run on the Worcester road; the Neponset, 21½ tons, 2 pair driving wheels 5½ feet diameter, built by Griggs, and run on Providence road; the Addison Gilmore, 23 tons, built by O. W. Bayley, Manchester, N. H., 2 pair driving wheels, 6½ feet in diameter, and run on Connecticut and Passumpsic River roads; the Union, 23 tons, built at the Boston Locomotive Works, and run on the Fitchburg road; and the Essex, 24½ tons, 1 pair drivers, 6 feet 2 inches, built by the Essex company, Lawrence, and run on the Lowell road.

The Neponset made the distance in 13 minutes 11 seconds—performing her quickest single mile in 1 minute 24 4-10 seconds, and at an average speed of forty miles per hour. She carried a pressure of 100 pounds of steam.

The Nathan Hale, 11 minutes 38 seconds and 2-10, quickest mile 1 minute 15 6-10 seconds.—Average speed, 45 miles per hour. The N. H. carried 120 pounds of steam.

The Addison Gilmore, of the Western railroad, 12 minutes 11 seconds and 3-10, quickest mile 1 minute 11 6-10 seconds. Average 47 miles per hour. Pressure of steam, 100 pounds all the way.

The Union, Time, 12m. 40 6-10s. Quickest mile 1m. 18 6-10s. Average speed 41 miles per hour. Pressure of steam 102 pounds.

The Addison Gilmore, Passumpsic river railroad. Time 12m. 10 9-10s. Quickest mile, 1m. 17s. Average speed 43 miles per hour. She started with 112 pounds steam, but it was not known how much she kept up. She is entirely new, and was run almost for the first time.

The Essex, 13 minutes 29 seconds—shortest single mile 1m. 26 7-10 seconds.

Pennsylvania.

Sunbury and Erie Railroad.—The citizens of Erie have held a meeting, at which resolutions were passed in favor of Erie county subscribing \$200,000, and the city of Erie subscribing \$300,000 towards the completion of the Sunbury and Erie railroad.

Hempfield Railroad.—The people of Washington county, Pa., have, in a series of resolutions, adopted at a public meeting, held on the 18th ult., at Cannonsburg, expressed their opposition to the proposed subscription by the county of \$200,000 to the capital stock of the above named road. Among the resolutions adopted was the following.

"That we regard Pittsburgh as the great commercial mart of western Pennsylvania, and the contiguous portions of adjoining States; that it is an act of questionable utility for the community to do anything that will either directly or indirectly retard the prosperity of Pittsburgh, which constitutes both an important home market, and ready communication with the east."

Reading Railroad.—The Pottsville Mining Register, speaking of the operations of the road for the past year, and of the improvement effected by the introduction of coal-burning engines, says:

"The most notable feature in the economical administration of affairs on the Reading railway, is the improvement in the locomotives in use, having for its object the substitution of anthracite coal in place of wood, which has now become a scarce and valuable article. The improvement purports to be the invention of Mr. Millholland, director of the railway. It has been thoroughly and practically tested, and the result is, an order for its adoption in all engines in use on the road. This is important to railways generally. A writer in the Ledger says the economical value of the Millholland improvement may be approximated thus:—The three altered engines were made by Winans, and they consumed 9½ tons of coal each, in the

round trip, with a full train of coal cars. The same engines, as altered, do the same service now with six tons of coal, besides saving the fire box and tubes; and it is inferred that a new engine, built expressly, would not consume over 5 tons.

The Reading company has over 90 road engines, all but 9 burn wood, using 14 cords, average, in the round trip.

Then say, 14 cords wood at \$4, sawed, split and put into the tender.....\$56 00
Against 6 tons coal, delivered at \$2..... 12 00

Shows a saving of.....\$44 00
on each trip of each engine, or about 10c. per ton of coal carried, counting 440 tons to the train! and two millions of tons of coal at 10c. makes an annual saving of \$200,000!

The expense of altering an ordinary iron-tubed wood engine is \$1000. If it have copper tubes, allowing their value as old copper, the cost would not exceed \$200—iron tubes being preferred in the improved boiler.

Indiana.

Jeffersonville Railroad.—The work on this road is still going ahead vigorously, although much inconvenience is experienced, in consequence of the difficulty of getting their iron from Cincinnati, on account of the very low water. The large engine-depot at Jeffersonville, the car-shop, and the blacksmith, are all completed. They are built of brick, in the very best style, and of the most substantial character. The materials for the large freight depot are being hauled to the ground, and it will soon be erected.

The cars continue their regular trips to Vienna, and the business is constantly increasing, and gives an earnest of what may be expected when the road is completed. It is managed in a business-like, and at the same time, the most economical manner nor the slightest accident ever having occurred on the road, and we see nothing to prevent it being the best paying road in the whole country. We look with great anxiety for the announcement of its completion, which will be during the coming spring.—*Louisville Courier.*

Peru and Indianapolis Railroad.—The grading of the whole of this Road, from Noblesville to Peru, has been awarded, with the exception, perhaps, of some half dozen sections which are very light. Mr. Prall, one of the New York company who have taken the contract of completing the road ready for the cars, is here, making the necessary arrangements for a vigorous prosecution of the work. By the terms of the arrangements between them and our company, the road is to be ready for the cars by November, 1852, but by a second arrangement they will finish it some six weeks earlier if possible.

G. L. Dart has the contract of building the bridge across the Wabash, and the earth work from that point to the depot. He has already commenced operations and intends getting up one of the piers this fall. Masons, stone cutters, quarrymen and laborers, will find constant employment, good wages, and prompt pay, on this work, and as the health of the country is good, we think they will do well to come this way.

The engineers completed the location of the road to-day, from the crossing of the river to the depot.

We may now regard the road as fairly under way and look for its completion by the time designated with every degree of assurance.—*Miami Co. Sentinel.*

Indianapolis and Terre Haute Railroad.—The iron is already laid on this road for a distance of nearly forty miles, more than half its entire length. It is to be laid down hereafter at the rate of five miles per week, so that if there is no unexpected interruption the road will be in running order through to Terre Haute about the middle of November.

Railroad Depot.—Under the general superintendence of the President of the road, Mr. Rose, the depot for the Terre Haute and Indianapolis Rail-

railroad at this place, is progressing finely. The masons will be through with the brick work in about two weeks, and the whole work pushed through to an early completion.—*Terre Haute Journal*.

The Depot for the same Road in this city is now being rapidly built. It will, from appearances, be finished in about a month.—*State Journal*.

Kosciusko, Elkhart, and Miami Railroad.—We learn from the Kosciusko Republican of the 25th ult., that up to that time there had been \$33,000 subscribed to the capital stock of the Kosciusko, Elkhart, and Miami Railroad [from Peru to Goshen.] The Republican says that \$60,000 will insure the road.

We learn from a gentleman who is correctly informed, that the subscription now amounts to over \$40,000.

Lafayette and Indianapolis Railroad.—Two hundred and sixty one thousand pounds of railroad iron for "our" railroads, were shipped from Toledo on Thursday last. Mr. White, President of the Lafayette and Indianapolis road, informs us that the laying of the iron track will be commenced some time this week.—*Laf. Cour. 29th ult.*

New Railroad Route.—There will soon be a new route from Lafayette to this city, the greater part of which can be travelled by railroad, viz: Indianapolis and Terre Haute railroad to Greencastle; 28 miles stage travel to Crawfordsville; and railroad from there to Lafayette. The whole distance will be about 94 miles, and the State road from Greencastle to Crawfordsville is better than from here to Crawfordsville. This route can probably be travelled by New Year's day—perhaps sooner. We think it will be much travelled, until the direct railroad is completed from here to Lafayette.—*Sentinel*.

The locomotive for the Lawrenceburgh and Indianapolis railroad has arrived at the former place, and the work of laying down the track will commence very soon.

From the Albany Evening Journal.

The Southwestern Trade.

LOUISVILLE, October 1, 1851.

T. WEED, Esq:

In the views I have heretofore presented, in the hope of showing with mathematical certainty that a full share of the carrying trade of the southwest was completely within the grasp of the northern or lake route, I confined myself entirely to the domestic or home consumption of cotton and tobacco to be transported over your State works, leaving the foreign consumption to go entirely by the New Orleans or southern route. A careful investigation, however, of the question, has demonstrated conclusively to my mind, that the Manchester spinner is equally to be benefitted with the Lowell spinner, by purchasing his cotton at Memphis or Louisville. If I can show this, then I augment the importance to the State of New York to secure by permanent arrangements this southwestern trade, as in addition to the advantage derived therefrom by your State public works, it will ensure to the shipping interest of the port of New York.

I propose to prove by figures, into the correctness of which I challenge the closest scrutiny by all adverse interests, that cotton purchased on account of a Manchester spinner, either at Memphis, Tenn., or Louisville, Ky., can be put at Liverpool, via the northern route to New York, and thence to Liverpool, cheaper than if purchased at the city of New Orleans and sent direct from there to England.—This I intend doing by the following tables, which have been prepared with great care, and by the assistance of one of the most experienced cotton factors in this whole region of country. In preparing these tables, I have taken as the period of shipment the first of May, so as to leave full time for the opening of your canal navigation; if this is too late a period, then my tables will apply equally to any earlier time that your canals, by Buffalo and Oswego, are prepared for navigation.

Here is a *pro forma* invoice of 500 bales of cotton, supposed to be purchased for a Manchester spinner in the city of New Orleans by order of his

agent in New York, and shipped thence to Liverpool:

500 bales cotton, weighing 250,000 lbs., at 8c. per lb., is\$20,000 00

CHARGES.

Brokerage, commissions, drayage and shipping, \$1 per bale.....\$500 00
Loss in exchange, say in paying \$20,500 by draft on N. York, at 60 days, at 2½ per cent discount 512 50
Freight to Liverpool, average ½d., say \$1 per 100 lbs.....2500 00
Insurance to Liverpool from N. Orleans, 1½ per cent on \$24,000 360 00
..... 3,872 50

Making actual cost of 500 bales bought in N. Orleans, and delivered in Liverpool.....\$23,872 50

I now propose to take the cost of the same number of bales of cotton, purchased at the same time and on the same account as the first above invoice, at Louisville, Ky., and then see on which side is the balance:

500 bales cotton, weighing 250,000 lbs., at 8c. per lb. in Louisville, Ky.....\$20,000 00

CHARGES.

Brokerage and commissions for buying and shipping, 50c. per bale, is.....\$250 00
Drayage at 6½c. per bale..... 32 00
Discount on 60 days' draft on New York for \$2082 50, amt of costs and charges..... 202 83
Transportation to New York, at 50c. per 100 lbs.—estimated for next season.....1250 00
Insurance from Louisville to N. York, on \$22,000, at ½ per ct. 110 00
Expenses receiving and putting on shipboard in New York.. 100 00
Freight from New York to Liverpool, 35c. per 100 lbs..... 875 00
Insurance from New York to Liverpool by steam, on \$22,000, at ½ per cent..... 165 00
..... 2,985 33

Making total cost of 500 bales bought in Louisville, Ky., and delivered in Liverpool\$22,985 33

Thus it will be seen, that while the cost of 500 bales of cotton, bought in New Orleans and shipped direct to Liverpool, is \$23,872 50, the cost of the same number of bales bought in Louisville, and sent to New York by the northern route, and thence by New York tonnage to Liverpool, is but \$22,985 33, showing a difference in costs, expenses and charges of \$887 17—more than a dollar and a half per bale in favor of the purchase made at Louisville. My object is to elicit investigation, and if there is any error in the Louisville table, or any charge that is underrated, I hope it will be pointed out. This is a new field of exploration, and may by many be regarded as chimerical; but before I am done, I intend to prove, by the concessions of the New Orleans commercial community, that they have already become seriously alarmed at the superior facilities that the northern route holds out over their own, and that they are now making the most strenuous and energetic efforts to counteract the influences that are at work to destroy their commerce, both foreign and inland. All that surprises me is, that more concert of action has not been had by your own State and Ohio, to turn thousands instead of hundreds of tons of freight from this direction through your artificial channels that reach the seaboard.

I purpose now to prove in the same manner that cotton purchased at Memphis, Tenn., and sent by the northern route to New York, and hence to Liverpool, will produce a still greater saving than what I have shown can be made by purchasing at Louisville. The table above, showing the cost of 500 bales of cotton bought at New Orleans for Liverpool, need not be recapitulated here, as in all things it would be the same. Its cost, as shown is \$23,872 50.

The following is a *pro forma* invoice for the same quantity of cotton, bought May 1, 1852, at Memphis, Tenn., and sent to Liverpool via Louisville, the Ohio and New York canals to New York, and thence to Liverpool:

500 bales weighing 250,000 lbs., at 7½ per cent per lb., is.....\$19,062 50

CHARGES.

Brokerage, com. for buying and shipping, 50c. per bale.....\$250
Discount on draft at 60 days on N. York, 1 per cent on \$20,000.... 200
Drayage, 5 cents per bale..... 25
Freight to Louisville, \$1 per bale. 500
Commissions and drayage in Louisville, 16 per cent per bale..... 80
Transportation from Louisville to N. York, 50c. per 100 lbs.....1250
Insurance from Memphis to New York on \$21,000, at 1 per cent.. 210
Drayage and shipping same at N. York, 20 cents per bale..... 100
Insurance from N. York to Liverpool by steam, on \$22,000, at ½ per cent..... 165
Freight from New York to Liverpool, at 35 per cent per 100 lbs.. 875 3,655 00
Making total cost of 500 bales cotton bought at Memphis and delivered in Liverpool via N. Y. canal.....\$22,717 50

Thus it will be seen that the difference in favor of the Memphis purchase over the New Orleans purchase is \$1,155, or upwards of two dollars a bale! Why then is it, with these decided advantages of sending cotton and tobacco by the northern or lake routes, whether intended for a home consumption or a foreign market, there is so little practical interest taken in it by your canal board, and railroad companies, when, if once turned your way, it would prove a more prolific source of revenue to you, and advantage to your commercial and shipping interests, than the mind has scarce the power to scope?

I have tables prepared, showing a saving to the shipper of tobacco to a foreign market by taking the canal and lake routes from this city, of over four dollars a hogshead, than if purchased and sent from New Orleans; but the fear of wearying your patience alone restrains me from embracing them in this communication.

Let me for a moment show you the alarm that pervades the New Orleans commercial community, and the gradual decline that is taking place in their commerce. You are aware they are now struggling to get up a great Southwestern railroad convention, to convene in New Orleans in January next, to devise means, by carrying forward railroad enterprises throughout the entire west, to draw to them the rich trade of the valleys of the Ohio and the Mississippi, and to prevent its seeking a market through the northern channel of communication with the Atlantic cities. They appointed a committee of their eminent and prominent citizens, who have put forth two very able and elaborate appeals to the sectional prejudices of the southwest, the first of which is contained in the August number of DeBow's Commercial Review, and the last in the number of September.

In the first address is to be found a table showing the increase of western produce reaching New Orleans from 1842 to 1850, and the increase during the same period that has passed through the New York canals, and the result is, a comparative increase by New York canals of 25 per cent over New Orleans, in 8 years! And now, with the prospect of tobacco and cotton leaving them, to a certain extent, no wonder can be excited at the struggles they are making to save themselves. Here is their own table, demonstrating the above result:

Produce from the west, received by the New York canals for the year of 1842.....\$22,751,013
Produce from the west, received by New York canals for the year 1850.....\$55,474,937
An increase during the 8 years of 145 per cent.
Produce from the west received at New Orleans for the year of 1842.....\$43,716,045
Produce from the west received at New Orleans for the year of 1850.....\$96,897,873

An increase during the 8 years of 120 per cent, and 25 cent less than by your canals.

In their address 'to the people of Louisiana,' contained in the September number of De Bow's Commercial Review, this committee admonishes their citizens that "New Orleans, once the Emporium and mart of the immense Empire of the West, sees her commercial rank and position fading away in the triumphant struggles of a host of formidable rivals!" And to show "that the commerce of the city has not increased," they exhibit a table showing the following decrease of vessels, steamboats flats, and tonnage in the year 1850 as compared with that of 1849.

I merely give the result, instead of setting out the table in detail. The decrease in 1850, in comparison with 1849, was as follows:—In arrivals, 572 flat boats, 89 steamboats, 175 American vessels and 216 coastwise vessels. Of foreign vessels there was an increase of 34. The decrease in tonnage for 1850 was: 65,677,07 American, 24,852,08 Foreign and 49,773,61 Coastwise. And the address in giving this table and these results, adds:—"The comparison of these years must not be considered as an isolated case; but, on the contrary is too true an expose of the course of trade of the city, for several years past!" Need I adduce further testimony, at this time, of the correctness of the views I have heretofore urged through your columns, that the Southwestern carrying trade is within your control if you will make an exertion to obtain it? If I appear unusually importunate upon this subject, it is only because from reflection and examination, I have become satisfied of its vastness and importance alike to the Southwest and to the Empire State.

A CITIZEN OF KENTUCKY.

Allegheny Valley Rail Road.

The Cincinnati Gazette, speaking of the projected railroad through the Valley of the Allegheny, says:

"This line will pass a rich iron section, and the very heart of the great lumber region on the Allegheny, and must effect an entire revolution in the lumber business. Boards will be seasoned and dressed, when they are sawed, and sent this way to market ready for use, instead of being rafted down here undressed, to be seasoned and dressed here; and where the line is opened, we may stand some chance of being able to send up flour and pork in exchange for lumber—instead of paying cash as heretofore."

The Pittsburgh Gazette, after copying the above, adds—"Not only would the towns and cities on the Allegheny and Ohio receive their lumber clean and dry from the mills where it is manufactured, but it would be carried by other roads to the interior of Ohio, to the great benefit of all parties.

At present large quantities of lumber are carried on the New York and Erie Railroad from the head waters of the Allegheny to the city of New York, and the trade is found to be very profitable, although the distance is over 300 miles. At New York, this lumber comes in competition with the lumber from the Kennebec and Penobscot where it is carried in schooners directly from the mills, which are generally located at or near the head of tide water. This fact shows the capacity of railroads to compete successfully with almost every mode of conveyance."

Railroad from Louisville to St. Louis.

A writer in the Louisville Courier, writing from Salem (Ia.) urges upon the citizens of Louisville the importance of their making a decisive move for the construction of a railroad from Louisville to connect with the road from New Albany, which would give them a connection with St. Louis. The writer says:—"The New Albany and Salem Railroad Company have now fifty miles of road completed, and in less than four weeks the cars will be running to Orleans—a distance of fifty-eight miles from New Albany. By looking at the map of this road, it will be seen that it runs almost West from Salem to Orleans.

The point I wish to call particular attention to is the advantages offered for a direct communication with St. Louis.

It is now certain that the Illinois portion of the New Albany, Mr. Carmel and Illinoisstown Railroad will be made, the stock being already taken and the lettings advertised. The distance from Orleans to Princeton is about sixty five miles; to Mr. Carmel about seventy. By the construction of this short connecting link, a direct communication is opened from Louisville to St. Louis.—*Balti. Patriot.*

To Stone Masons.

THE NEW ALBANY AND SALEM RAILROAD Company have about 10,000 c. yards of Abutment Masonry to let at private contract, to be completed by the 1st of July, 1852.

To contractors who can produce testimonials of character for ability as STONE MASONS, fair, remunerating prices will be given.

Early applicants, by securing the work now offered, will gain advantages over competitors for the erection of an additional 15,000 yards, to be let out early next spring, in bridging the streams between Bedford and Michigan City, via Bloomington, Gosport, Crawfordsville and Lafayette, (the most productive and healthy region in Indiana,) by the knowledge they will have acquired of the resources of the country.

Application may be made in person, or by letter addressed to the undersigned, at New Albany, Indiana. S. B. WILSON, Engineer.

Engineer's Office, New Albany, }
Sept. 29th, 1851.

LOWMOOR IRON.

THE LOWMOOR IRON COMPANY having appointed WM. BAILEY LANG their sole agent in America and Canada, he is now prepared to receive and execute all orders for Railway Tire Bars, bent, welded, and blocked Railway Tires, Axles, Piston Rods, and Boiler Plates. Also, plain, angle, rivet and every other description of Lowmoor Iron.

All communications respecting the above are requested to be sent to Wm. Bailey Lang, at his Steel Warehouse, No. 9 Liberty Square, Boston, or to the Lowmoor Iron Works, Bradford, Yorkshire, England. 30th Sept., 1851.

RAILROAD SPRINGS. Fuller's Patent India-rubber Springs.

PRICE reduced to 50 cents per pound. The owners of this Patent now manufacture the Springs in their own Factory, and guarantee that each spring shall perform its required duty.

Purchasers guaranteed against adverse claims. They may have full confidence in the working qualities of the springs.

The suits brought against Ray & Co., will soon be brought to issue, and we await the result with satisfaction, having full confidence in the pure administration of the Laws.

The long advertisements put forth by Ray & Co. about prior invention of the spring are worthless; he has not proved prior invention, and cannot sustain his patent in a Court of Law.

For the owners of Fuller's Patent,
G. M. KNEVITT,
23 Courtlandt st., New York.
October 7, 1851.

Railroad Iron.

THE undersigned are prepared to enter into contracts now at specific prices, to deliver Railroad Iron during the coming Winter and Spring, free on board at the shipping ports in Wales, or at ports in the United States.

CHOUTEAU, MERLE & SANFORD,
Sept. 30, 1851. No. 51 New st.

Railroad Iron.

THE undersigned offer for sale 1000 tons Railroad Iron, now ready for delivery from ship "Niobe."

CHOUTEAU, MERLE & SANFORD,
Oct. 1, 1851. 51 New st.

To Contractors.

A DIVISION of about 30 miles of the grading, together with the mechanical works of the South Side Railroad, commencing near Farmville, and extending westward, will be let on the 15th of October next, at Farmville.

C. O. SANFORD, Chief Engineer.
Petersburg, September 4th, 1851.

Pneumatic process for making Foundations for Bridges, Piers, etc.

THE Attention of Engineers, Contractors, and Bridge Builders, etc., is directed to this method of forming secure foundations. Hollow Cylindrical piles from 8 inches to 10 feet in diameter may be sunk through sand, mud, clay, etc., to any required depth, and filled with concrete or masonry.

The efficacy and economy of the process has been demonstrated in the construction of numerous permanent works, at a much less cost than the use of any other method. (See evidence in Parliamentary enquiry, Railroad Journal, April 19, 1851.)

Contracts made, or licenses granted for the use of the invention in any part of the United States, by
CHARLES PONTEZ,
34 Liberty street, N. Y.

To Contractors.

York and Cumberland Railroad, Maine.
Portland, Sept. 12th, 1851.

PROPOSALS will be received at the office of the York & Cumberland Railroad Company in this city, from the 10th to the 15th day of Oct. next, for the grading, masonry and bridging of the York and Cumberland Railroad from Gorham Station to Great Falls, a distance of about 38 miles. Proposals will also be received at the same time and place, for building the entire line of said road, including the superstructure, or any one or more divisions thereof.

Plans, profiles and specifications will be exhibited, and all requisite information given at the office of the company, in Portland, on and after the 10th of October next.

Trains have run from Portland to Gorham during the past season; work has also been done to a considerable extent at the western end of the line, between Great Falls and Springvale.

The York and Cumberland Railroad when completed will be the great interior line—in connection with the Boston and Maine Railroad—between Portland and Boston, and will command the principal travel between the two cities.

By order of the Board of Directors,
JOHN A. POOR, President,
JOHN F. ANDERSON,
September 15. Chief Engineer.

Railroad Iron.

THE undersigned, Agents for British Manufacturers, continue to sell Railroad Iron of the best quality, and of any weight or pattern required; deliverable at any part of the United States or Canada.

They have now on hand, ready for delivery at New York:

2,000 tons of an approved pattern, weighing about 60 lbs. to the yard.

WM. F. WELD & CO.,
42 Central Wharf, Boston.

RAILROAD SPRINGS. Fuller's India-rubber Springs.

THESE are now made in our own Factory, of the best materials. Each spring is guaranteed to perform the required work. Purchasers guaranteed against adverse claims.

Car Builders will save great expense by calling at the office of the Company.

23 Courtlandt St., New York.

To Railroad Companies.

THE undersigned has discovered and patented an imperishable, cheap, and sufficiently elastic substance, to be introduced between the sill and rail, so that the stone sill can be used in place of the wooden sill: entirely overcoming that rigidity where the rail is laid directly on stone. Address
J. B. GRAY, Philadelphia.

July 10, 1851. 4m

Bridges & Brother,
DEALERS IN
RAILROAD AND CAR FINDINGS,
64 Courtlandt street, New York.

Having established a general Depot for the sale of articles used in the construction of Railroads, Locomotive Engines and Railroad Cars, we would invite your attention to our establishment. We have already in store a good assortment of CAR FINDINGS and other articles used in the trade, and feel justified in saying, that should you desire anything in our line, we can supply on terms perfectly satisfactory, and in the event of your desiring to order, you may feel assured that your terms will be as good as though you were here to make your own purchases.

Among our goods may be found Railroad Car Wheels, Axles, Jaws and Boxes, Nuts and Washers, Bolts, Brass Seat Hooks and Rivets, Window and Blind Springs, Lifters and Catchers, Door Locks, Knobs and Butts, Ventilators and Rings, Car Lamps, Coach and Wood Screws, Jack and Bed Screws and Babbitt's Metal; also Plushes, Damask, Enameled Head Linings, Cotton Duck for Top Covering in width sufficient without seams, Curled Hair and all other articles appertaining to cars.

Also a new and valuable CAR DOOR LOCK, well adapted to the Sliding Door. This is decidedly the best yet introduced.

LOCOMOTIVE ENGINE LANTERNS, the best article made in the country. Whistles, Gauge and Oil Cocks, Hemp Packing, American, Russian and Italian. We are also agents for Lightner's Patent Journal Box for Car Axles, that invaluable invention, for the economical use and preservation of Car Journals.

Coach VARNISH and Japan of the best quality. We would also offer our services for the purchase as well as for the sale of goods on commission.—

Both members of our firm have had the experience of many years in the manufacture of Railroad Cars, and our Senior was a member of the well known house of DAVENPORT & BRIDGES, Car Manufacturers, Cambridgeport, Mass. With our knowledge of matters pertaining to Railroads, we feel quite confident in giving satisfaction to both buyer and seller, and hope that through assiduity and attention to any business entrusted to our care we shall merit a continuance of confidence and patronage.

BRIDGES & BROTHER.

July 22, 1851.

Lightner's Patent Axle Boxes.

THE Undersigned are Agents for, and offer for sale, *Lightner's Patent Axle Boxes*, for Railroad Cars and Tenders, which have, by thorough experience, been demonstrated to be one of the most valuable improvements ever introduced in Locomotion. The saving effected in oil alone, will in a few months pay the first cost of these boxes, independent of other advantages. They are now in use upon the following, among other roads, viz:

Boston and Worcester, Boston and Providence, Boston and Fitchburgh, Nashua and Lowell, Providence and Worcester, Northern, N.H., Cheshire, Manchester and Lawrence, Concord, N.H., Concord and Claremont, Ogdensburg, (Northern, N.Y.) Stonington, New London Willimantic and Palmer, New Jersey Central, New Hampshire Central, Worcester and Nashua, Fitchburg and Worcester, Connecticut and Passumpsic, Lowell and Lawrence, Salem and Lowell, Wilton Branch, Newburyport.

Below will be found the certificates of a number of gentlemen, whose opinions will be good authority in every part of the country.

Office Boston and Prov. R. R., }
Boston, Dec. 28, 1849. }

Mr. JOHN LIGHTNER,

Sir,—It affords me pleasure to say, that after two years' trial of your boxes, I am fully and entirely satisfied of their superiority over any other pattern we have used. This superiority consists in economy of oil and freedom from "heating." I have tried every pattern of box in use, of any note, and do not hesitate to say, that you have devised one which in every respect combines greater advantages than any other within my knowledge; these advantages are so manifest, that I am fitting up all

our cars with your boxes, as fast as practicable.

Annexed, is a statement of an experiment with your boxes, the result of which may be of use to your interests.

Ten-passenger cars, running 72 wheels, fitted up with Lightner's boxes used 41½ pints of Patent Oil, at 50 cts. per gallon, ran 43,099 miles, equal to 5-18 pints per wheel for 43,099 miles. Speed, 30 to 40 miles per hour.

Very respectfully yours,

W. RAYMOND LEE, Supt.

I have examined the above statement of Mr. Lee, and fully concur with him in his opinion of the superiority of Lightner's box.

GEORGE S. GRIGGS,
Supt. Machine Shop B. & P. R. R.

Boston, July 26, 1849.

This is to certify that J. Lightner's axle boxes for railroad cars and locomotive tenders, have been in use on the Boston and Worcester railroad one year, and I unhesitatingly pronounce it, in my opinion, the best and most economical one in use, requiring less oil, of easy application, not susceptible of derangement, as in most kinds in use. When requiring repairs or renewal, the same may be done in one-fourth of the time usually occupied for that purpose. The box requires oiling not oftener than once a month—is kept quite free from dust, and consequently wears much longer than those generally in use.

D. N. PICKERING,
Supt. Motive Power, B. & W. R. R.

Office of Boston Locomotive Works, }
December 12th, 1849. }

The Boston Locomotive Company have been using J. Lightner's patent axle boxes under the tenders of their engines for several months, and find them more highly spoken of by the railroad companies that have used them in regard to economy in the use of oil, their durability and their ease of adjustment, than any other boxes which they have used. We therefore do not hesitate to recommend them to all railroad companies.

DANIEL F. CHILD,
Treas. Boston Locomotive Works.

Taunton Locomotive Works, }
Taunton, July 7, 1849. }

Mr. H. F. ALEXANDER,

Dear Sir,—Your favor of yesterday came to hand in which you ask what success we have met with, in using Mr. Lightner's patent box for cars, engines, &c.

We have put it in use on the Boston and Providence railroad, New Bedford and Taunton Branch railroad, Central railroad, N. J., Norfolk County, Rutland and Burlington, and as yet we have not had one complaint from them; and from what we have used of it, and witnessed, we do not hesitate to say that it is superior to anything in use for that purpose. It is simple in its construction, and easy of access, and the reservoir is held close to the shaft, and the oil and journal is perfectly secure from dust; they will run from four to six weeks without replenishing the oil. The brass in the box is changed very much easier than by any other plan that we have seen.

Very resp. yours,

W. W. FAIRBANKS, Agent.

Office Providence & Worcester R. R. Co., }
Providence, Dec. 17th, 1850. }

H. F. ALEXANDER, Esq.,

Sir,—The "Lightner patent boxes" for cars and locomotives have been in use under a portion of the passenger cars and engines of this company for upwards of two years, and have given very great satisfaction.

Though combining many excellent qualities, their great superiority consists in the economy of oil.

The result of experiments upon this road shows the consumption of oil by the use of this box, to be not more than one sixth part the quantity consumed by the use of the common box.

With the common box, eight passenger cars, 64 wheels, running 90 miles per day, consumed in 12 months 520 gallons of oil, being an average of 8½ gallons per wheel per annum.

With the Lightner box the same cars running the same number of miles per day, during the same space of time consumed 73½ gallons of oil, being an average of 1½ gallon per wheel per annum.

So manifest are its advantages over any other box used by this company, it is intended to place it under all our cars as soon as practicable.

Besides the saving of oil, as they afford complete security from dust, we think them more durable than any other box in use.

Another advantage resulting from the use of this box is, cars run more easier than with the common box. The saving in fuel which it would effect, would of itself, we think be a sufficient inducement to use this box in preference to any other known to us.

Very respectfully,

ISAAC H. SOUTHWICK, Supt.

JOHN B. WINSLOW,

Supt. Machine Shop, P. & W. R. R.

Cambridgeport, April 5th, 1851.

H. F. ALEXANDER, Esq.

Sir,—This may certify that I have been engaged in the manufacture of railway cars since 1834, and have built for the different railroad companies cars of all descriptions to the amount of three millions of dollars, and have used on the above cars all kinds of journal boxes, and find that none give better satisfaction than the "Lightner patent box," both on account of the saving of oil and the arrangement for taking out and re-placing the composition by means of the sliding key, and other conveniences which no other box possesses.

Yours respectfully,

CHARLES DAVENPORT.

Worcester, March 17th, 1851.

H. F. ALEXANDER, Esq.

Dear Sir,—This is to certify that I have been for some years past engaged in building cars, and that I have tried most, if not all of the patent boxes, and have found Lightner's patent superior to all others as far as the saving of oil is concerned, also the ease with which they are fitted and exchanged in case they get out of order.

For the last three years, I have put them under all of the cars I have built, and in every instance they have given the most entire satisfaction.

Yours truly,

OSGOOD BRADLEY.

Office Union Works, So. Boston, }
May 23d, 1851. }

This certifies that I have applied Mr. J. Lightner's patent axle boxes to my locomotives and tenders for the past two years. I consider them superior to all others,—economical in their use, and possessing many important advantages not found in any other boxes.

SETH WILMARTH.

Office 15, R. R. Exchange, Boston, }
June 1, 1851. }

This is to certify, that we have known the success of Lightner's patent journal boxes upon various roads in New England the past three years, and have been led to examine their peculiar construction.—We are well satisfied of their merits, and have adopted them upon our small gravel cars, and take pleasure, as we ever have done, in recommending their use upon all roads where we are employed in the construction.

GILMORE & CARPENTER,
Contractors.

Amoskeag Manufacturing Co. Machine Shop, }
Manchester, May 31, 1851. }

H. F. ALEXANDER, Esq.

Dear Sir,—We are using the Lightner box on all the engines and tenders we build, and we are satisfied that it is the best box in use, and recommend the same to all those who purchase engines at our works.

Yours respectfully,

O. W. BAYLEY, Agt.

This is to certify that the Fitchburg railroad company having become satisfied of the superiority of J. Lightner's patent Axle Boxes for Railway Cars and Locomotive Tenders adopted the same

and are bringing them into general use upon their road.

One year's experience with the above improvement, has fully convinced me that there has never been anything offered to the public for that purpose which possess such intrinsic value; in fact, this is an improvement which seems to overcome all the difficulties found in all the various kinds now in use. It possesses very many advantages over all others: Some of which are [first] the first cost is much less than that of most boxes in use. [Secondly] 75 per cent is saved in oil; one gill applied to each Journal once a month, or one quart to an eight wheel car, is all these boxes require per month [Thirdly] no dust can gain access to the Journal, which is constantly lubricated with clean oil; hence the saving in repairs of Journals and composition bearings, is a matter of importance. [Fourthly] its construction is truly simple—not complicated, having nothing liable to become loose by constant and severe service. [Fifthly] for convenience there is nothing which approaches this improvement.—The composition bearings may be removed from the Journals of an eight wheel car, by one man, and returned, or duplicates, in twenty minutes, while under the car: the same would require two men, at least half a day with other boxes in use.—The trucks and wheels using these boxes, are free from oil and dirt, usually seen upon all railroad cars, at great expense to the corporation.

NATH'L JACKSON.

Supt. Car Building and Repairs, F.R.R. Co.

Boston, March 9, 1849.

I hereby certify, that I have examined a box for Car Journals, invented by Mr. Lightner of Roxbury, Mass, and I have thought so well of it that I have adopted it on our railroad, I have known of its success on other roads.

S. M. FELTON,
Supt. F. R. R.

Office of the Central R. R., N. J.,
Elizabethtown, May 1849.

H. F. ALEXANDER, Esq.,

Dear Sir:—Your favor, [wishing to be informed how we liked Lightner's patent axle boxes for R.R. Journals,] has been duly received; in answer we would say, we have used the boxes on Locomotive tenders one year, more or less, and on our cars some six months. I consider them the best boxes in every respect, I have ever used, or even seen used on any other roads—for safety, durability and the economy pertaining to all the details connected with the boxes and Journals of R. R. Car wheels; and we shall adopt them upon this road.

Yours Respectfully,

JOHN O. STEARNS.

Supt. Central Railroad Co., N. J.

Manchester, N. H., Nov. 1st, 1850.

H. F. Alexander, Sir,

I have used "Lightner's Boxes" under all the Cars of the Manchester and Lawrence railroad, and feel no hesitation in saying that I think them to be the best boxes now in use.

Yours, &c.,

THEODORE ATKINSON, Agent.

Cheshire R. R. Office, Keene,
March 5th, 1851.

Mr. H. F. Alexander,

Sir,—Lightner's Patent Boxes have been used on the Cheshire R. R. about a year, and have given the highest degree of satisfaction.

All the Passenger Cars now in use, and a considerable number of Merchandise Cars are furnished with them, and they will take the place of the Common Boxes on all the cars as fast as circumstances will permit.

Very Resp't.

L. TILTON,
Supt. Cheshire R. R.

Boston and Worcester Railroad,
Boston, April 1st, 1851.

H. F. Alexander, Esq.,

Dear Sir,—Lightner's Patent oil saving box for railroad cars, has been adopted by this corporation; we are taking out the common and substituting the

Lightner's at the rate of fifty boxes per month; it will soon take the place of all others, as it is decidedly preferable to any heretofore used by this corporation.

G. TWITCHELL, Supt.

Statement of amount of oil used on 32 8-wheel freight cars, on the Boston and Providence Railroad (with Lightner's Boxes) from March 10, 1849, to February 27, 1851, and upon 12 8-wheeled passenger cars from September 8, 1849, to February 27, 1851.

FREIGHT CARS.

Amount Oil.	No. months.	Amount Oil.	No. months.
1.—21 pts.	10	17.—23½ pts.	14
2.—19 "	6	18.—23½ "	11
3.—25 "	13	19.—36 "	21
4.—18 "	7	20.—22 "	10
5.—22 "	12	21.—38½ "	24
6.—24 "	13	22.—29 "	23
7.—20 "	11	23.—35½ "	23
8.—21 "	11	24.—37½ "	23
9.—23½ "	10	25.—51 "	23
10.—21 "	9	26.—31½ "	24
11.—20 "	9	27.—28½ "	23
12.—21½ "	11	28.—36 "	23
13.—19 "	8	29.—50½ "	24
14.—25½ "	17	30.—50 "	23
15.—20½ "	10	31.—41 "	23
16.—31 "	18	32.—39½ "	23

Total, 925½ pts. 510

PASSENGER CARS.

1.—19½ pts.	18	7.—30 pts.	18
2.—25½ "	18	8.—25½ "	18
3.—33½ "	16	9.—29 "	18
4.—19 "	15	10.—46½ "	17
5.—15 "	15	11.—9 "	9
6.—22 "	18	12.—65½ "	17

Total, 340 pts. 197

Averaging 1 4-5 pints of oil for freight, and 1 7-10 for passenger cars per month only!

All orders and enquiries promptly attended to.
BRIDGES & BROTHER,

No. 64 Courtlandt st., New York.

July 25, 1851.

To Boiler Makers, Engineers, etc., etc.

PATENT LAP-WELDED IRON TUBES,

Manufactured by the

BIRMINGHAM PATENT IRON TUBE CO.

UNDER

PROSSER'S PATENT,

from one and a quarter to eight inches in diameter.

These tubes are well known for their superiority over all other descriptions for Locomotive, Marine and other Steam Engine purposes, for which they are used very extensively in Great Britain and on the Continent of Europe.

For sale in quantities to suit purchasers, by

WILLIAM BIRD & CO.,

44 Wall st., New York.

July 26, 1851.

To Chief Engineers, Directors of Railroads, Canals, etc.

A Civil Engineer and Surveyor, who has been professionally engaged under the British Government, East India Company, etc., is desirous of obtaining employment as an Assistant. No objection to the South or West. Address for one month to C. E. & S., American Railroad Journal office. August 16, 1851.

To Engineers.

A NEW WORK on the Marine Boilers of the United States, prepared from authentic drawings, and illustrated by 70 engravings, among which are those of the fastest and best steamers in the country, has just been published by B. H. Bartol, Engineer, and is for sale at the store of

D. APPLETON & CO.,

Broadway.

September 1, 1851.

CORROSIVE SUBLIMATE.

THIS article now extensively used for the preservation of timber, is manufactured and for sale by POWERS & WEIGHTMAN, manufacturing Chemists, Philadelphia.

Jan. 20, 1849.

European and North American Railway.

THE undersigned, the three persons first named in the first section of an act passed by the Legislature of Maine, and approved the twentieth day of August last past, entitled "An Act to incorporate the European and North American Railway Company," and being specially authorized therefor in and by said act, hereby give public notice that, for the purpose of receiving subscriptions to the stock of said company, as established by the act aforesaid, according to the provisions thereof, not exceeding forty thousand shares, books of subscription will be opened under the direction of the undersigned, according to the regulations prescribed, at the time and places following, viz:—On WED-

NESDAY, the Twentieth day of August next,

At Calais, Maine, with Noah Smith, Jr., Esq.
Eastport, do. " Col. Bion Bradbury.
Machias, do. " Walker & O'Brien.
Ellsworth, do. " Seth Tisdale, Esq.
Oldtown, do. " Geo. P. Sewall, Esq.
Bangor, do. " Geo. W. Pickering, Esq.
Orono, do. " Hon. Israel Washburn, Jr.
Waterville, do. " Hon. Timothy Boutelle.
Brunswick, do. " Prof. William Smyth.
Augusta, do. " B. A. G. Fuller, Esq.
Belfast, do. " John Y. McClintock, Esq.
Portland, do. " John B. Brown, Esq.
Portsmouth, N.H. Hon. I. Goodwin.
Salem, Mass. Stephen A. Chase, Esq.
Boston, do. " Francis Skinner & Co.
Lowell, do. " John Wright, Esq.
Worcester, do. " Charles Washburn, Esq.
Providence, R.I., " Billings Brastow, Esq.
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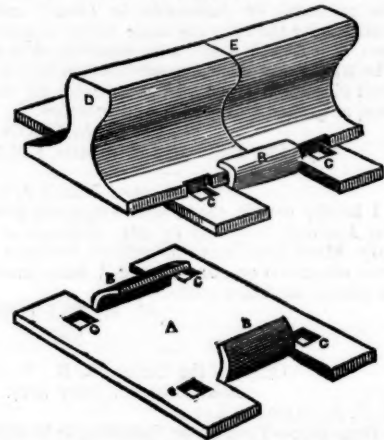
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